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THE

OHIO MEDICAL JOURNAL.

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VOLUME I.

COLUMBUS, O.:
HANN & ADAIR, PUBLISHERS.
1881-82.

CONTENTS.

	PAGE
Abscess of Brain.....	215
Absorbent Cotton.....	240
Accidental Ante-partum Hemorrhage.....	301
Acne, Ergot.....	85
Aconite in Tonsillitis.....	78
Ainhum.....	552
Albumen Water.....	274
Albuminuria without Convulsions.....	151
Alcohol in Aural Polypi.....	79
Alopecia of Eyebrow.....	228
Amenorrhea.....	221
Amer. Med. Ass., officers.....	43
Amer. Surg. Ass.....	144
Amputation, primary or secondary.....	74
<i>Anatomy of Nervous System</i> , Ranney.....	218
<i>Anatomy</i> , Roberts.....	220
<i>Anesthesia</i> , Lyman.....	260
Anesthetics in Labor.....95, 117,	217
Medico-Legally.....	409
Aneurisms, Mimic.....	226
Ankle, Caries of.....	90
Antagonism bet. Opium, &c.....	173
Anteflexion, a Cause of Dysmen.....	454
Ante-partum Hemorrhage.....	301
Antiseptic Surgery.....	270
Appearance of Wounds of Intestine.....	138
<i>Arkansaw Doctor</i>	41
Arsenic in Lead Poisoning.....	534
Asthma.....140, 361	
<i>Atlas of Skin Diseases</i>	322
Atropia vs. Homatropine.....	78
Audiphone.....	15
Auricles, do they Contract.....	185
Auxiliary Societies and the State Society..	188
AVRES, S. C., Eye Injuries.....	473
Report on Oph. and Otol.....	7
<i>Baby, How to Feed</i>	39
Backache.....	306
Bacteria, Gases.....	82
Bartholow, <i>Electricity</i>	35
Battey's Operation.....	568
Battle of Ideas.....	27
Bauchheitism.....	545
BRACH, J. N., Typhilitic Abscess.....	157
BEACH, W. M., Small-pox.....	382
Billing's Rules.....	192

	PAGE
Billroth, Operations.....	456
Pylorus.....	42
Biological Research.....	113
BIRCHMORE, W. H., Cells.....63, 388	
Birth Marks.....	144
<i>Bladder Diseases</i>	269
Bladder, Extrophy of.....	526
Inversion of.....	476
BLEILE, A. M., Cells.....	171
Bliss, on Garfield.....	193
Editorial.....	233
Blood Enemata.....	84
Board of Health Bill.....315, 371	
By an Expert.....	279
Bone, Mechanics of.....	535
"Bone-setting" Horse.....	565
Bones, to Bleach.....	374
Boracic Acid in Otorrhea.....1, 15	
Poisoning.....	272
Bougie, Fiddle-string.....	505
Bougies, Filiform.....	555
Brain, Abscess of.....	215
and Eye.....	309
Large.....	550
<i>Brains of Criminals</i>	127
BRAMBLE, D. D., Mechanics of Bone.....	535
Bread.....	567
Breast, Single.....	453
to Remove Tumors without Mutilation	507
<i>Bright's Disease, How to Live</i>	187
Bright's Disease, Iodide of Potassium.....	83
Bronchitis, Ammonia Inhalations.....	508
Chronic.....	314
Brown, <i>Dis. of Wo</i>	513
BRYAN, L. D., Case of Phthisis.....	289
Byers, Marriage.....	48
Cadavers, to Preserve.....	424
Calabar Bean in Epilepsy.....	465
Tetanus.....	310
Cancer, Hot Water.....	136
of Breast.....	550
Pain of.....	84
Pre-cancerous Stage of.....	491
Prize for Cure.....	520
Prophylaxis.....	550
Carbolic Acid Poisoning.....119	

	PAGE		PAGE
Carbolic Acid Craze	359	Cystitis.....	80
Cardiac Valv'r. Lesions—table.....	273	DANDRIDGE, N. P., Resec. of Rib, in Empy-	
Caries of Ankle.....	90	ema.....	57
CARPENTER, JULIA W., Optical Headache	49	DAVIS, L. N., Medical Profession and the	
CARROLL, T. M., Lithiasis.....	253	Public.....	397
Catarrh, Pharyngeal.....	76	Day, <i>Children</i>	123
Catheter instead of Tracheotomy.....	95	Delaware Co. Med. Soc.....	368
Caustic, Oxalis Acet.....	308	Delegates to Am. Med. Assoc'n and State	
Cells, Retrospect.....	63, 171, 388	Societies.....	519
Cerebral Hemorrhage.....	484	Depilatory Pomade.....	358
Hyperemia, by Bauncheitism.....	545	<i>Diagnosis</i> , Fothergill.....	40
Cerebro-spinal Meningitis, Chloral.....	145	Ranney.....	40
Cervical Endometritis.....	87	of Insanity.....	248
Vertebra, Dislocation, Reduced.....	458	Question of.....	490
Cesarean Section and Embryotomy.....	222	Diarrhea.....	80
Changes in New Constitution.....	557	of Phthisis.....	231, 509
Chapped Hands.....	458	Dilator, New.....	432
<i>Chemistry</i> , Clowes.....	36	Dinner-pill.....	88
Leffman.....	221	Diphtheria.....	31
Witthaus.....	220	Lemon Juice.....	232
<i>Chest</i> , Ingals.....	186	Pathology of.....	521
Chicago Drainage.....	85	<i>Diseases of Nerv. System</i>	35
Chilblains.....	458	Diseases of Nutrition.....	439
<i>Children</i> , Day.....	123	<i>Diseases of Women</i> , Tilt, Brown, Edis.....	513
Chloral, Administration of.....	360	Dislocated Cervicle Vertebra, Reduced... ..	458
in Cerebro-spinal Meningitis.....	145	Dislocations of Hip.....	425
in Labor.....	86	<i>Dissections</i> , Ellis.....	407, 552
Chloroform as an Emetic.....	550	Doctor Making.....	48
Death from in Labor.....	217	Doubling up.....	144
Clark Co. Med. Soc.....	120, 265, 401	Dowell, Death.....	48
Clavicle, Dislocation of Sternal End.....	307	<i>Drainage</i>	39
Club-foot with Apparatus.....	356	In Chicago.....	85
Cock, G. B., Dis. of Nutrition.....	439	Supervision of.....	324
"C. O. D.".....	144	Druggist's Mistake.....	73
Cold in Head.....	230	<i>Drugs</i> , Lewin.....	549
COLLAMORE, G. A., Malarial Hemiplegia... ..	343	<i>Drugs that Enslave</i>	40
Collodion in Sprains.....	309	Duboisine.....	9
Color-blindness.....	13	Duhring, <i>Atlas</i>	322
Columbus M. C. Commencement.....	417	DUMM, S. C., Typhoid Fever.....	257
Committees of Society.....	142	Duties of Practitioners to Families of Phy-	
Compressed Pellets.....	551	sicians.....	560
Conjunctivitis.....	458	Dysentery, Acute.....	166, 176
CONKLIN, W. J., Sub-acute Tetanus.....	154	Dysmenorrhœa, Antelexion.....	454
Connecticut Itinerants.....	48	Earache.....	80
<i>Constipation</i>	39	Ears, for Prominent.....	308
Constitution, New, Changes in.....	557	Ectropion.....	11
Consultation, A.....	240	<i>Eczema</i> , Bulkley.....	269
<i>Consumption</i> , Tyndale.....	553	Eczema.....	73
Diarrhea of.....	231	Ignipuncture.....	492
Information.....	47	Infantile.....	85
Lippert's Pill.....	186	of Scalp.....	135
Contagious Diseases, to Prevent Spread of	464	Edis, <i>Dis. of Wo</i>	513
Copaiba Mixture.....	136	Elastic Adhesive Plaster.....	136
CORLETT, W. T., Diphtheria.....	521	<i>Electricity</i> , Rockwell.....	367
Corn Cure.....	306	Elwell, <i>Malpractice</i>	34
Correlation of Med. Surg. and Histology.. ..	549	Embryotomy and Cesarean Section.....	222
CORNWELL, H. G., Clinical Lecture.....	377	Empyema.....	57
Cough, Tr. of.....	139	Encyclopedia of Surgery.....	46, 408
Crede's Method.....	507	Engleman, Position in Labor.....	304
Croton Oil, to Apply.....	180	Epileptic Insane, Resolution.....	2
CUYKENDALL, M. C., Gynecology.....	52	Epilepsy, Calabar Bean.....	465

	PAGE
Epilepsy, <i>Coccus Indicus</i>	364
Epithelioma, Hot Water.....	136
Erysipelas, to Check.....	137
Eserine.....	7
Eucalyptus, Globulus.....	22
Exhilarant Mixture.....	140
Expert Fees.....	428
External Perineal Urethrotomy.....	292
Extirpation of Uterus.....	542
Extrophy of Bladder.....	526
Eyebrow, Alopecia of.....	228
Eye, Foreign Bodies in.....	177
Injuries, Ayres.....	473
Mauthner.....	407
Noyes.....	417
Splinter in 47 Years.....	306
to Dissolve Metallic Bodies in.....	493
False Pains, Due to Laceration.....	133
Fat, Diet for Excess of.....	80
<i>Favorite Prescriptions</i>	267
<i>Favus</i>	33
Feeding Bottles.....	83
Feet, Pains in.....	225
Feigned Insanity.....	347
Felons.....	460, 461
<i>Fever</i> , Wilson.....	128
Fiddle-string Bougie.....	505
First Contributor.....	20
Fistula, Vesico-Vag.....	543
<i>Food and Dietetics</i>	269
<i>Forceps</i> , Landis.....	131
Foreign Bodies in Eye.....	177
Fothergill, <i>Indigestion</i>	267
Fowler, C. R., Extrophy of Bladder.....	526
Fractures of Nasal Bones.....	76
Fractures of Inner Table of Skull.....	537
Freckles.....	180
Frost-bite.....	458
Frozen Animals to Revive.....	564
Galactagogue.....	423
Gallic Acid, Solvent.....	544
Garfield.....	143
Autopsy.....	191
Report of Case.....	193
Wound.....	91
Gestation, Prolonged.....	541
Glesan, <i>Midwifery</i>	318
Gonorrhea.....	305
GOODHUE, GEO., Chloral in Meningitis.....	145
GRAY, S. S., Milk-sickness.....	284
Green, <i>Pathology</i>	38
Gross, <i>Impotency</i>	128
Gross' Resignation.....	520
Guiteau, Insane.....	92
on Experts.....	564
Gundry, Appointment of.....	192, 520
GUTHRIE, H. S., Lead Poisoning.....	534
Gynecology.....	52
Atkinson.....	365
Hair, Jaborandi.....	375
Loss of.....	458

	PAGE
Hallucinations, Internal.....	110
Hammond, <i>Nervous Diseases</i>	132
HAMMOND, T. H., Exter. Perineal Urethrotomy.....	292
Syphilis of Throat.....	487
HARMAN, G. A., To Prevent Lac. of Perineum.....	533
Headache.....	140
Optical.....	49
Heart-burn.....	465
Heart Lesions—(table).....	273
<i>Hemacytometer</i>	220
Hematocoele, Perimetric.....	340
Hemiopia.....	36
Hemiplegia, Malarial.....	343
Hemorrhage in Typhoid.....	82
Hemorrhoids.....	360, 540
Hernia, Femoral.....	530
Warren.....	410
Hiccough.....	361
High Priests of Surgery.....	46
Hill, <i>Veneral</i>	363
Hip Disease, Treatment of.....	77
Hip-joint, Diagnosis of Fractures and Dislocations.....	181
Hip, Vance.....	425
<i>Histology</i>	271
Hodge, Death of.....	48
Hodgen, Death of.....	561
Holmes, O. W. Names of Diseases.....	240
Holmes, <i>Surgery</i>	219, 362, 516
Homatropine, vs Atropia.....	78
Hydrobrom.....	10
Homeopathy, Palmer.....	552
and the Brit. Med. Ass.....	414
Hoosier Doctor.....	132
Hospital, New.....	418
Hour-glass Contraction.....	455
House Plants.....	84
HUDSON, S., Hypodermic Injection in Nevus.....	16
HUMPHREYS, C. H., Abscess of Brain.....	215
Douche in Hysteria.....	174
Dysentery.....	166
Hydrocele.....	312
<i>Hygiene and Tr. of Catarrh</i>	29
Hygiene of Laborers.....	17
Hymen in Cow.....	564
Hypodermic Injection in Nevus.....	16
Hysteria, Case of.....	111
Douche in.....	174
Illinois, <i>Transactions</i>	31
<i>Impotency</i> , Gross.....	128
Improved Tinct. of Iron.....	508
<i>Index Catalogue</i>	366
<i>Index Medicus</i>	45
<i>Indiana State Med. Soc.</i>	468
Indigestion.....	465
Fothergill.....	267
<i>Infancy, Diseases</i> , Smith.....	271
Infantile Paralysis.....	358
Infectious Diseases, to Prevent Spread.....	464

	PAGE		PAGE
Ingals, <i>Chest</i>	186	Lung, Wounds of.....	359
Inhalations.....	31	Lusk, <i>Midwifery</i>	367
Injection of Aneurism, Gangrene.....	456	Malarial Hemiplegia.....	343
Injuries of Eye, Ayres.....	473	<i>Malpractice</i> , Elwell.....	34
Insane Asylums in Europe.....	315	<i>Malpractice</i> Suit.....	46
Insanity.....	56	Maltine, Fothergill.....	314
Diagnosis.....	248	Mammary Gland, Tumors of.....	538
Feigned.....	347	<i>Marine Hosp. Service</i>	34
from Drugs.....	562	MARPLE, W. B. Hematocele.....	340
Instruments, New.....	555	Mason, Death of.....	561
<i>Internat. Ency. Surgery</i>	46, 408	<i>Massachusetts State Med. Soc.</i>	467
International Med. Congress.....	143	Mastitis, Strapping.....	134
Intestinal Obstruction.....	93, 530	Mechanics of Bone.....	535
Intestine, Appearance of Wounds of.....	138	Med. Dept. Wooster University.....	590
Intussusception.....	456	W. R. U.....	94
Inversion of Bladder.....	476	Medical Colleges, American.....	565
Iodoform, Odor.....	226	<i>Digest</i>	368
Pneumonia.....	544	Economy.....	239
Iritis, or Glaucoma.....	379	<i>Electricity</i>	35
Jaborandi, Hair.....	375	Profession and the Public.....	397
in Eye Dis.....	10	Societies, Reorganization of.....	43
Jenner's Reply.....	240	Society Notes.....	42
JAWETT, M., Vital Statistics.....	433	Medicine, Profession of.....	375
<i>John Hunter and His Pupils</i>	34	Medico-legal Case.....	47
JOURNAL, THE.....	141	Membrana Tympani, Removal of.....	137
Kansas City Med. College.....	374	Metric System.....	45
<i>Kansas State Society</i>	551	Meyer, F. Von, Death.....	370
Keith, Ovariectomy.....	443	Miami Co. Med. Soc.....	121, 175
Kendig, Board of Health.....	315	<i>Michigan State Med. Soc.</i>	363
KENNEDY, J. C., Insanity.....	56	<i>Microscope</i> , The.....	142
KINSMAN, D. N., Information Wanted.....	47	<i>Midwifery</i> , Glesan.....	318
Sanitary Science.....	97	Lusk.....	367
Tetanus.....	298	Midwives in Cin.....	85
KIRKLEY, C. A., Albuminuria without Con- vulsions.....	151	Migraine, Cannabis Indica.....	140
Knee-joint, Rupture of Int. Lat. Lig.....	229	Miliary Tuberculosis, or Typhoid.....	185
Koch, Tubercle Parasite.....	546, 560	Milk Indigestion.....	232
Laceration Causing False Labor Pains.....	133	Milk-Sickness.....	284
Lachrymal Conjunctivitis.....	89	Mitchell, <i>Nervous Diseases</i>	35
Sac. Incision of.....	506	MORSE, D. A. Diagnosis of Insanity.....	248
Lactopeptine.....	81	<i>Mother Ought to Know</i>	40
LANDIS, H. G., Head and Feet.....	551	<i>Mother's Guide</i>	270
New Dilator.....	432	Mumps.....	31
<i>Forceps</i>	131	Muscle, Rupture of.....	77
LONDON, C. P. Typho-malarial Fever.....	281	Musculus Vocalis.....	75
<i>Landmarks</i> , Holden.....	268	<i>Myodynamics</i>	131
Laryngoscope, a New.....	79	Myopia.....	12
Laxative Pills, Squibbs.....	274	Nausea.....	464
Lead Poisoning, from Cosmetics.....	534	Nephrectomy.....	306
LECRONE, L. W. Placenta Retained.....	173	Nerve Sedatives, with Quinine.....	79
Lefman, <i>Chemistry</i>	221	Nerve-stretching.....	357, 559
Leucorrhea in Children.....	225	<i>Nervous Diseases</i> , Hamilton.....	366
Lewin, <i>Drugs</i>	549	Hammond.....	132
<i>Library of Med. Classics</i>	321	Neuralgia.....	294
Lice, Pigeon.....	307	Nevi, Subcutaneous.....	358
Liebig's Corn Cure.....	306	Nevus, Injection in.....	16
Lippert's Pill.....	186	New Members.....	5
Listerism.....	236	New York Code.....	411, 418, 419, 471, 489
Lithiasis, or Gravel.....	253, 266	Transactions.....	89
Liver Wounds.....	135	Night-sweats.....	361
LOWMAN, J. H. Study of Fever.....	159	Nipples, Retracted.....	454
		Sore.....	135

	PAGE
Nitric Acid, to Apply.....	182
<i>North Am. Rev.</i>	37, 322, 517
<i>North Carolina State Society</i>	552
North Cent. O. M. S.	262
N. W. O. M. A.	316
Nostrils, Food &c. Introduced.....	314
Nostrums and Public Health.....	232
Nutrient Suppositories.....	463
<i>Nurse and Mother</i>	364
Occlusion of Pupil.....	377
Ohio Medical Colleges.....	374
OHIO MEDICAL JOURNAL.....	3
Ophthalmology and Otology, Report on... 7	
<i>Opium Habit</i>	367
Optical Headache.....	49
Optic Nerve Fibres.....	375
Optico-ciliary Neurotomy.....	11
Orchitis.....	73
Organic Mat. Med.....	408
Ovarian Tumor, Treated by Drainage.....	86
Ovariectomy, Antiseptic.....	144
Difficulties in.....	543
Keith.....	445
Pedicle After.....	133
Ovum, Migration of.....	506
Oxalis Acet. as a Caustic.....	308
Pain of Cancer.....	84
Pains in Feet.....	225
Pancoast, Death.....	419
Pannus.....	458
Paralysis, Infantile.....	358
Pathology of Diphtheria.....	521
<i>Pathology</i> , Green.....	38
Paying a Doctor.....	96
Payne, Death of.....	563
Pedicle after Ovariectomy.....	133
Perineum to Prevent Laceration.....	453, 533
Peritonitis, Chronic.....	313
Petroleum in Phthisis.....	464
Phantom Aneurisms.....	226
Pharyngeal Catarrh.....	76
Phthisis Pulmonalis, Case of.....	289
Physicians Duties to Families of Physicians	560
Physician, Qualifications of.....	568
Pilocarpine, in Eye Dis.....	10
Pirogoff, Death.....	375
Placenta Previa, Statistics.....	468
Retained.....	173
Plumbing, Supervision of.....	324
Pneumonia, Cold Inhalations.....	509
Infectious.....	229
Lyster's Case.....	363
Podophyl. Pills—Squibb's.....	274
Polypi, Aural.....	79
POOLEY, J. H. Tetanus.....	233
<i>Pop. Sci. Mon.</i>	37, 517
Porro's Operation—result.....	305
Position of Women in Labor.....	304
Potassium Iodide, Bright's Disease.....	83
<i>Practice</i> , Hartshorne.....	366
PRATT, E. B. Typhoid Fever.....	329

	PAGE
Pre-cancerous Stage of Cancer.....	491
PRESTON, J. C. Vaccine Virus.....	469
Pregnancy, Prolonged.....	541
Pregnancy at 54.....	185
at 60.....	305
vomiting.....	183
Presentation of Head and Feet.....	551
President's Address, Committee on.....	3
Privy Vaults.....	566
Prolific Woman.....	387
Prostatic Enlargement.....	226
Puerperal Convulsions.....	44
Purgatives, Hypodermically.....	230
Pyemic Synovitis following Small-pox.....	529
Question of Diagnosis.....	490
Quinine with Sedatives.....	79
Ranney, <i>Anatomy</i>	218
Reamy, Then and Now.....	540
To Prevent Rupture of Perineum.....	453
Rectal Alimentation.....	89
<i>Rectum</i> , Van Buren.....	38
REEVE, J. C., Anesthetics in Labor.....	117
Death from Chloroform in Labor.....	217
Hysteria, Case of.....	111
Repetition of Prescriptions.....	375
Report on Gynecology.....	52
on Oph. and Otol.....	7
on Sanitary Science.....	97
Resection of Rib in Empyema.....	57
Rheumatism.....	369
Rhubarb Mixture, Squibb's.....	274
RIGGS, W. J., Small-pox.....	528
Roberts, <i>Anatomy</i>	220
Rockwell, J. J., Prolific Woman.....	387
Roe, T. H., Death.....	472
Rumbold, <i>Catarrh</i>	29
Rupture of Muscle.....	77
SACCONI, A., Question of Diagnosis.....	490
Salutatory.....	41
<i>Sanitary News</i>	142
Science.....	97
Scarlatina, Treatment.....	115, 122
SCHENCK, Thermometer.....	469
Schwan, Death of.....	561
SCOTT, W. J., Hygiene of Laborers.....	17
Opium vs. Solanaceæ.....	173
Scratches in Horses.....	140
<i>Sewer-gas</i>	466
Sewers, Ventilation.....	374
SHARP, D. W., Strang. Hernia.....	214
SIHLER, C., Biological Research.....	113
Single Breast.....	453
Skin-grafting.....	539
from Dead Subject.....	229
SKINNER, S. W., Urethro-vesical Disease..	346
Skull, Fractures of Inner Table.....	537
Skunk Liquor.....	240
Small-pox.....	382, 401, 528
To Prevent Spread.....	422
Smith, <i>Infancy</i>	271
SNYDER, D. J., Eucalyptus Globulus.....	22

	PAGE
Specific Urethritis?	182
Spinal Caries	493
Diagnosis of	460
Sponge Grafting.....	372, 455
Sponges, to Clean	566
SPRAGUE, M. H., Board of H. Bill.....	371
Intestinal Obstruction	530
Hernia	530
Sprains, Collodion	309
Squibb's Laxative Pills	274
Rhubarb Mixtures.....	274
Starling M. C. Commencement	416
Startin's Mixture	272
State Board of Health Bill.....	275
State Society, Next Meeting.....	518
Programme	556
and Auxiliary Societies	188
Proceedings	1
STEELE, R. M., Neuralgia.....	294
Strangulated Hernia.....	214
Strapping in Mastitis.....	134
Strychnia as an Expectorant.....	274
Study of Fever.....	159
Styptic Cotton.....	539
Sub-acute Tetanus.....	154
Subcutaneous Nevi.....	358
Subjects, to Preserve.....	424
Sugar, Test for.....	543
Suppositories, Nutrient.....	463
Surgery by Machinery.....	459
Holmes.....	219, 362, 516
Keatly.....	551
Sweating Sickness	81
Swift, What Ailed?.....	564
<i>Syphilis and Marriage</i>	129
of Throat	487
Malignity of	537
Prophylaxis of.....	139
Tapping, Value of Repeated.....	307
Tarsalgia	180
Temperature Charts.....	280
Tetanus.....	233, 298
Calabar Bean	310
(<i>Tetanus</i>) Tardy Trismus.....	154
Thapsia.....	310
Then and Now	540
Thermometer	469
THOMPSON, W. R., Tr. of Scarlatina.....	115
Tilt, <i>Dis. of Wo.</i>	513
Tinea Tonsurans	137
Tobacco	468
Tonga.....	471
Tonsilitis, Aconite	78
Soda.....	510
Tonsilotomy vs. Virility	46

	PAGE
Torsion of Arteries.....	463
Tracheal Retractor.....	455
Tracheostomy, the Catheter	95
Ultimate Effects	135
<i>Transactions</i> Am. Gy. Soc.....	323
Transfusion, Peritoneal.....	88
Trichinosis.....	85, 108
Craze.....	88
Tubercle Parasite.....	546, 560
Tuberculosis Question	512
Tumors of Breast, Removed without Mu- tilation	507
Tuscarawas Co. Med. Soc	562
Typhilitic Abscess	157
Typhoid Fever; Dumm	257
Enemata Instead of Purgatives.....	272
Hemorrhage.....	82
Pratt	329
as Fecal Intoxication.....	545
Typho-malarial Fever.....	281
Ulna, Overgrowth of.....	307
Union of Wounds	502
Urethritis, is there a Specific?.....	182
Urethrocele	55
Urethro-vesical Disease.....	346
<i>Urinary Analysis</i>	40
Uterine Displacements, Curability of.....	223
Improved Treatment of.....	223
Uterus, Extirpated through Vagina.....	542
Vaccination	402, 414
Vaccine Eruptions	510
Virus, Human or Bovine.....	469
Van Buren, <i>Rectum</i>	38
VANCE, R. A., Dislocations of Hip.....	525
Inversion of Bladder.....	476
<i>Veneral Diseases</i>	363
Glenn.....	552
<i>Virginia State Society</i>	550
<i>Visiting Lists</i>	267, 268
Vital Statistics	433
Vesico-Vag. Fistula	543
Voice Registers	75
Vomiting of Pregnancy.....	183
Weisse's Experiments.....	93
West Va. Board of Health	27
Pharmaceutical Asso'n	28
Society	24
<i>Wilderness Cure</i>	267
Wilson, <i>Fevers</i>	128
Witthaus, <i>Chemistry</i>	220
Wood, Death of.....	561
WOODRUFF, L., Cerebral Hemorrhage.....	484
Wounds of Intestine, Appearance of.....	138
to Obtain Union.....	502

THE OHIO MEDICAL JOURNAL.

Vol. I.

JULY, 1881.

No. 1.

THIRTY-SIXTH ANNUAL MEETING OF THE OHIO STATE MEDICAL SOCIETY.

Held at Columbus, June 14, 15 and 16, 1881.

FIRST DAY.

AFTERNOON SESSION.—In the absence of the retiring President, the Society was called to order by Vice-President John Davis, of Dayton, who introduced the President-elect, Dr. E. H. Hyatt, of Delaware.

After prayer, by the Rev. Dr. Bailey, Mayor Peters was presented, who delivered a carefully prepared address of welcome.

The reports of the Secretary and the Treasurer were read and referred to the Finance Committee.

Filling Committees: Committee on Admissions was filled by the appointment of Drs. W. S. Battles, A. Follett and Jonathan Morris. Committee on Medical Societies, Drs. A. T. Speer, S. C. Dumm and Toland Jones. Judicial Council, Drs. W. M. Beach, B. B. Leonard and C. S. Muscroft. Finance Committee, Drs. W. W. Jones and T. A. Reamy.

The report of the Committee on Codification and Revision of the Constitution was presented, and referred to the Judicial Council.

Dr. S. C. Ayres read his report on Ophthalmology and Otology.

Dr. J. C. Kennedy presented his report on Insanity, which was read by the Secretary.

Dr. G. W. Maris presented a volunteer paper on Alcohol, which was referred to the Publication Committee without reading, owing to the inability of the author to make himself heard.

Dr. N. P. Dandridge read a volunteer paper on Exsection of a Rib in Empyema.

In the absence of other papers, the matter of the new Constitution was taken up, during the discussion of which the Society adjourned.

The evening session was entirely occupied by the discussion of the proposed Constitution.

SECOND DAY.

MORNING SESSION: Pres. Hyatt called the Society to order. The Judicial Council reported back the proposed Constitution and By-Laws, unanimously

recommending their adoption. After considerable debate, a motion prevailed to refer the matter to the committee, with instructions to publish, together with the present Constitution and its amendments, in order that the Society may take final action on it next year.

Dr. Starling Loving read his report on the Etiology of the Diseases of the Mississippi Valley.

Dr. Julia W. Carpenter read a volunteer report on Optical Headaches.

Adjourned.

AFTERNOON SESSION: Minutes of previous sessions read and approved. Election of officers was next in order and resulted as follows:

President, Starling Loving, M. D., Columbus.

Vice-Presidents, W. M. Beach, M. D., London; C. P. Landon, M. D., Westerville; E. B. Harrison, M. D., Napoleon; John A. Wilkins, M. D., Delta.

Secretary, J. F. Baldwin, M. D., Columbus.

Asst. Secretary, C. A. Kirkley, M. D., Toledo.

Treasurer, T. W. Jones, M. D., Columbus.

Committee on Admissions, E. Stanley, M. D., Sandusky; N. H. Sidwell, M. D., Wilmington; Jonathan Morris, M. D., Ironton; J. F. Gabriel, M. D., Piqua; H. G. Landis, M. D., Columbus.

During the balloting, Dr. A. H. Brundage offered the following resolution, which was referred to the Committee on Laws:

Whereas, There is in our State a large and increasing number of Epileptic Insane, many of them in our now overcrowded Lunatic Asylums, and in the County Infirmaries, who should be in an institution constructed with a special view to their comfort, maintenance and treatment. Therefore,

Resolved, That we heartily approve of the plan proposed to accomplish this end, in the bill introduced by the Hon. J. W. Green, of Green County, in the last Legislature; and will use all honorable means to have the same enacted into a Law by the next General Assembly.

Pres. E. H. Hyatt then delivered his address, which was, on motion, referred to a special committee, consisting of Drs. W. H. Philips, Isaac Kay and J. N. Beach, with instructions to consider its recommendations and report next morning.

Adjourned.

The evening was spent in the enjoyment of a banquet at the Asylum for Feeble-minded Youths.

THIRD DAY.

MORNING SESSION: Minutes read and approved. On motion of Dr. C. P. Landon, a committee was appointed by the President to express the sentiments of the Society in regard to the entertainment at the Asylum last night, and the management of the Asylum by the Superintendent and Trustees. The committee, consisting of Drs. Landon, Baldwin and Herrick, reported as follows:

Resolved, 1st, That this Society hereby expresses, with pleasure, its thanks for the entertainment at the Asylum for Feeble-minded Youths, and heartily commends Dr. Doren for the efficient management manifest in all the details of his arduous duty. 2d, That the cooperation and support of the Trustees and Legislature is worthy of the approval of the State of Ohio.

These resolutions were unanimously adopted.

Dr. D. N. Kinsman read his report on Sanitary Science.

Dr. Joseph Ransohoff read a volunteer paper on Some Rare Forms of Syphilis.

The Committee on the President's Address made the following report :

The Committee most respectfully report, that it has been favorably impressed in regard to the manner and substance of the Address, and that there are three points contained in it which demand the special attention of this Society; viz: Medical education; merits of new remedies with their various pharmaceutical preparations; and, lastly, a change as to the manner of issuing the Transactions of the Society.

In regard to the first named topic, we would express our deep-felt convictions that, whilst the subject of medical education may be deemed a trite one, it should continue to receive the earnest and thoughtful consideration of the medical profession, until that high standard in this respect has been attained which is by almost every one conceded to be right. Especially would we call attention to that part of the address which pertains to a suitable preliminary education. Whilst your committee has no formulated recommendation, or resolutions, to offer upon that point, yet your careful attention is called to the subject.

In regard to the subject of new remedies and pharmaceutical preparations, so ably and exhaustively treated of in the Address, we would recommend the studious attention of every member of the Society, and whilst we are not so fully competent to express an opinion upon this point as others, who have more critically examined it, yet we believe that there are matters of vital importance in the subject to the profession, and that at some time in the near future, if not now, some definite action may be called for in reference to it.

We would close this brief report by calling the attention of the Society to that part of the Address which refers to the change in the mode of publishing the Transactions.

The plan proposed is to discontinue the issuing of the volume of Transactions as heretofore, and instead to have the papers published in the medical journals. Thinking well of this suggestion, and in order that still more definiteness should be given as to the outline of the above named plan, we called a conference with our worthy and able Secretary upon this subject, which has resulted in the following proposition from him, which we think will fully satisfy the demands of the President's recommendation, and thus advance very materially the best interest of the Ohio State Medical Society.

Proposition: I agree to publish a Monthly Journal—to be known as the OHIO MEDICAL JOURNAL—to be the journal of the Ohio State Medical Society, of not less than forty-eight pages of reading matter, with entirely new type, &c., for one dollar per annum for each paid-up member of this Society. I will guarantee a monthly circulation of not less than 3,000 copies.

The JOURNAL shall be open to members of the Society for the legitimate discussion of all scientific or legislative questions that may come before the Society, including matters pertaining to medical legislation, State Board of Health, Epileptic Asylum, etc., etc. Especial attention will be paid to giving synopses of the Transactions of other State Societies.

An *Editorial Staff* will be organized, by securing Associate Editors at Cincinnati, Cleveland, Toledo and Dayton: said Associate Editors to be subject to the approval of a committee to be appointed by the State Society.

These Associate Editors will report items of news from their respective localities, society proceedings, etc. They will also endeavor to secure papers for publication in the JOURNAL, and, in general, protect and conserve the interests of the Society. They will also have a general oversight of articles sent for publication, as well as of the advertising pages.

Respectfully, J. F. BALDWIN.

We endorse the above proposition of Dr. Baldwin as part of our report and recommend its adoption.

W. H. PHILIPS,
J. N. BEACH,
ISAAC KAY. } *Committee.*

Dr. H. J. Herrick moved that the proposition contained in the Report, as to the publication of the *Transactions* in the form of a journal, be accepted. This elicited considerable discussion, *pro* and *con*, during which the Secretary arose, and stated that he had made this proposition for the good of the Society: he did not see how it could benefit him in any way commensurate with the labor and expense involved, while it might entail upon him serious pecuniary loss. He had offered to give the Society, and at no increased expense to its members, a circulation for its papers of three thousand, instead of about as many hundreds, as heretofore; he had offered the members a medium by which they could communicate with each other, and by which chairmen of committees could appeal, not to members of their committees alone, but to the entire membership throughout the State, in aid of any important legislative or other enterprise; he had proposed to place in the hands of the Society, a means not only for diffusing a knowledge of its work throughout the profession, but also for organizing itself into a vital power whose influence should be felt in politics, and acknowledged by party leaders. But opposition had sprung up; his honesty had been questioned, and his motives misconstrued; and he would therefore withdraw his proposition.

Leave to withdraw his proposition was, however, refused, and, the vote being called for, the motion of Dr. Herrick was carried unanimously.

Dr. N. H. Sidwell read a volunteer paper on Our Profession.

Dr. Reuben A. Vance also read a volunteer paper, on syphilis, which was discussed at some length.

Motion was made that the President appoint a committee of five, to act in the selection of the associate editors for the JOURNAL. *Carried.* Committee appointed: Drs. W. M. Beach, John Davis, H. J. Herrick, Joseph Ransohoff, and W. T. Ridenour.

CONSOLIDATED REPORT OF COMMITTEE ON ADMISSIONS.

The following named persons were by vote admitted to the Society. Those marked with a * have paid their fees and completed their membership.

NAME.	RESIDENCE.	VOUCHERS.
Bain, F. D.	Kenton	W. H. Philips, C. H. Reed.
*Barton, F. J.	Zanesville	J. W. Hamilton, T. A. Reamy.
*Beverly, P. F.	Columbus	T. W. Jones, J. W. Hamilton.
Black, F. M.	Darbyville	F. C. Tipton, E. B. Pratt.
Bradford, C. R.	Mt. Liberty	J. W. Russell, P. Pickard.
*Brayton, F. W.	Carey	C. A. Kirkley, G. A. Collamore.
*Christopher, W. H.	Van Wert	S. B. Hiner, J. A. Hines.
*Clark, D. M.	Columbus	A. Follett, Starling Loving.
*Cooper, Albert	Columbus	J. W. Hamilton, J. W. Russell.
*Covington, P. D.	Bellefontaine	B. B. Leonard, J. Morris.
*Crane, A. M.	Kilbourne	J. F. Baldwin, Starling Loving.
*Dawson, J. O.	Westerville	C. P. Landon, D. W. Coble.
*Dunlap, C. O.	McArthur	D. Halderman, T. A. Reamy.
*Emery, W. H.	Mt. Sterling	E. B. Pratt, Jos. Ransohoff.
*Fisher, H. M.	Akron	W. J. Underwood, W. S. Hough.
*Follett, G. P.	Columbus	Starling Loving, T. W. Jones.
*Fulton, C.	Bucyrus	W. J. Kelly, W. B. Carson.
*Granger, F. M.	Russell Station	R. C. Ross, C. S. Muscroft.
Hardy, Neil	Up. Sandusky	J. E. Whitman, — Pomerine,
*Hipple, J. R.	Waldo	B. W. Davis, A. B. McMurray.
*Hough, C. A.	Waynesville	L. Woodruff, J. Morris.
*Jacobs, W. C.	Akron	T. A. Reamy, W. J. Underwood.
Jones, H. E.	Circleville	T. C. Tipton, E. B. Pratt.
*Kelly, W. J.	Galion	J. W. Hamilton, J. Morris.
*Kennedy, C. P.	Bellefontaine	B. B. Leonard, H. C. Pearce.
*King, C. W.	Columbus	Starling Loving, T. W. Jones.
Kreiger, G. L.	Lebanon	N. H. Sidwell, T. A. Reamy.
*Lee, M. F.	Columbus	W. H. H. Nash, D. N. Kinsman.
*Leever, J. C.	Defiance	T. H. Kearney, E. B. Harrison.
Loving, Jos. S.	Columbus	A. Follett, T. W. Jones.
*McIntyre, Wm.	Millville	E. H. Hyatt, S. W. Fowler,
*Markel, I. F.	Mifflin	E. V. Kendig, X. C. Scott.
*Marshall, O. W.	Jeffersonville	E. B. Pratt, D. A. Mann.
*Mattoon, F. N.	Plain City	D. Halderman, S. W. Fowler.
*Montgomery, H. B. B.	Gilboa	Jos. Ransohoff, T. A. Reamy.
Myers, I. A.	Shelby	H. J. Herrick, W. H. Sykes.
Olmstead, D. S.	Millersburg	J. E. Whitman, W. F. Barnes.
*Powell, W. S.	Defiance	J. M. Shoemaker, E. B. Harrison.
*Quinn, A. T.	Wilmington	N. H. Sidwell, T. A. Reamy.
*Rankin, T. W.	Kirkersville	J. W. Hamilton, D. Halderman.
*Reed, C. A. L.	Hamilton	C. Falconer, J. F. Baldwin.
Rodebaugh, H. A.	Reynoldsburg	C. P. Landon, D. Halderman.
*Row, Geo. T.	Circleville	A. P. Courtright, T. A. Reamy.

NAMES.	RESIDENCE.	VOUCHERS.
*Sapp, C. E.	Gambier	J. W. Russell, P. Pickard.
*Skinner, S. W.	Toledo	G. A. Collamore, C. A. Kirkley.
*Snyder, C.	West Jefferson	D. Halderman, J. N. Beach.
Stewart, S. G.	Centreville	J. S. Beck, J. Davis.
*Stockton, Geo.	Columbus	J. F. Baldwin, W. M. Beach.
*Strain, A. J.	London	L. Woodruff, W. M. Beach.
*Sturgeon, S. W.	Ada	E. V. Kendig, W. W. Jones.
*Sylvester, J. E.	McArthur	D. Halderman, T. A. Reamy.
*Thacker, L. G.	Defiance	G. A. Collamore, S. B. Hiner.
*Thomson, J. C.	Rollersville	C. E. Beardsley, R. H. Rice.
Trimble, R. T.	New Vienna	R. C. Russ, S. C. Ayres.
Vance, R. A.	Cincinnati	D. D. Bramble, J. F. Baldwin.
*Whistler, H.	New Market	R. C. Russ, S. C. Muscroft.
Winslow, J. W.	Spring Mountain	J. W. Hamilton, — Pomerine.
Wise, D. B.	Mt. Eaton	J. E. Whitmar, W. F. Barnes.

The Judicial Council reported that the next meeting of the Society would be held at Columbus, commencing on the second Tuesday of June, 1882, at 2 o'clock P. M.

The Committee on Finance made the following report, which was adopted: The Finance Committee have examined the reports of the Secretary and Treasurer, and find them correct. We recommend that the salaries of the Secretary and Treasurer remain as heretofore (\$50.), but that the Treasurer be instructed to apply the interest from the funds now in his hands—over \$1,200—to the increase of his salary. We also recommend that the annual assessment be one dollar.

D. HALDERMAN, *Chairman*.

Society adjourned, to meet at 2 o'clock. P. M.

AFTERNOON SESSION:—Dr. D. D. Bramble read a volunteer paper on Certain Questions in the Mechanics of Bones.

Motion was made that Dr. D. N. Kinsman take the place of Dr. A. Andrus, in the Committee on Medical Law, the other members to continue. *Carried*.

On motion of Dr. J. W. Hamilton, the report of the Finance Committee was reconsidered, and the Treasurer's salary increased to \$100; the Treasurer being instructed to invest the surplus funds in his hands to the best advantage, and place the receipts to the credit of the Society.

The following papers were read by title, and referred to the Publication Committee:—*Eucalyptus Globulus*, by Dr. D. J. Snyder; *Heredity of Acid Stomach*, by Dr. G. S. Franklin; *Report on Gynecology*, by Dr. M. C. Cuykendall.

The minutes were then read and approved, and the Society adjourned.

J. F. BALDWIN, *Sec'y*.

STARLING LOVING, *President*.

C. A. KIRKLEY, *Ass't. Sec'y*.

COMMUNICATIONS.

REPORT ON OPHTHALMOLOGY AND OTOTOLOGY.

DR. S. C. AYRES, CINCINNATI.

Read before the Ohio State Medical Society, June 14, 1881.

As there has been no report on Ophthalmology and Otology since that of Dr. D. B. Smith, of Cleveland, made at the meeting of this Society in 1878, I shall take the liberty of going back to that date and giving you a hasty resume of practical points most interesting and valuable to the practitioner. Much might be said which would be out of place here, and I shall try to confine myself to practical points. You will pardon me if I diverge from the established custom of a simple statement of facts, and give you my personal observations on some things, particularly the therapeutics of eye diseases.

Ophthalmology is more ardently studied than ever. Every year shows some substantial advancement in physiology, pathology, and therapeutics. In Europe and this country, eye diseases are being treated more successfully than ever, and several new and improved operations are now in vogue. The literature on the subject is very extensive, and the journals, in French, German and English, are a credit to the profession.

Eserine.—Within the past three or four years, Eserine has come into very general use among specialists. It has been both a disappointment and a success, therapeutically considered. The high hopes which had been raised as to its influence on glaucoma, have been disappointed. Knapp reports one case of acute glaucoma cured, but says that its influence on sub-acute and chronic glaucoma has been either negative or positively injurious. Dr. Landeburg, of Philadelphia, in summing up his observations, says: "I must regard eserine to be not only an unreliable and, in most cases, worthless remedy in glaucoma, but also a very dangerous one, which, by its primary results, may lull the patient, as well as the attending physician, into a delusive security, endangering thus the favorable chances of another more efficacious therapeutic action." The general sentiment, in my judgment, is that this remedy is useful only in the acute form of glaucoma. Here it can be used with great advantage to control the disease until an iridectomy can be made. It becomes then, in the hands of the practitioner, who is most likely to see the case first, a most valuable agent. If he will not make the iridectomy himself, (which after all is the proper thing to do) he can control the disease until his patient can reach a specialist who will operate. Its effects must be watched and the pupil kept moderately contracted. A judicious use of this remedy

would save many eyes which reach the specialist in a hopeless condition.

In sub-acute and chronic glaucoma, eserine is practically useless. In one chronic case, I saw its use followed by a violent exacerbation of all the previous symptoms. Its instillation seldom produces any constitutional disturbance. In two cases, however, alarming symptoms followed. Both were cases of chronic glaucoma. One a healthy German, where the eserine was used at first with very favorable influence on tension and vision. The next day was appointed for the operation of iridectomy. A second instillation was made about half an hour before the appointed time. In a few moments he began to feel very badly, when I saw his entire body covered with a cold, clammy sweat, his countenance very pinched, and he was to all appearances like one in the collapse of cholera. Stimulants were administered freely, and friction applied to the skin and he soon recovered. The second case was very much like the first, with this exception that a very much smaller amount of eserine was used and yet the same prostrating effects followed. There was undoubtedly an idiosyncrasy in these cases, and they must be very exceptional for they are the only ones among a large number of cases. I have seen it used in infants, in delicate children, and in aged persons, and with those exceptions it has produced no untoward results.

If eserine has disappointed its warm advocates in the treatment of glaucoma, it has more than compensated for this by the success which has attended its use in the treatment of corneal affections. It has here achieved triumphs which were unlooked for by those who for years had looked upon sulphate of atropine as the sheet anchor in such troubles. It has produced, or is producing, a revolution in the treatment of keratitis, and it would seem that V. Wecker's statement that "Eserine will replace the atropine," is likely to come true.

Dr. Williams, of Boston, says that it is efficient in keratitis, corneal ulcer, kerato-conus, beginning sympathetic irritation, and paresis of accommodation. Dr. Bull, of New York, from his experience, says that photophobia of phlyctenular ophthalmia is more relieved by eserine than atropine. I have used the sulphate of eserine quite extensively in corneal inflammations, and I must say that the more I use it the more do I appreciate its good qualities. It seems to act well in all the various forms of corneal affection, as in phlyctenulæ, in superficial keratitis, in deep, sharply defined ulcers, etc. If you will permit me, I will, in the most succinct manner possible, give you a history of a few typical cases:

Mrs. K., aged 30; superficial keratitis, slight diffuse haziness of cornea, lower and inner quadrant more involved; great photophobia, conjunctiva intensely injected. She had been suffering about three weeks and during all this time had used atropine, from which her pupil was widely dilated. Eserine sulph. gr. j. ad aq. \mathfrak{z} ss, was ordered to be instilled into the eye three times

a day. She was also ordered quinine, two grains three times a day. In two days she was decidedly better, and in six days was practically well. The pupil was kept contracted for a few days, and then the use of the eserine was suspended. The cornea cleared off wonderfully fast and she regained good vision.

Mr. K., aged 60; superficial ulceration of cornea, at outer margin. Cornea was extensively infiltrated around the ulcer and there was considerable photophobia and pain. Began the use of eserine twice a day, and its effects were soon quite manifest. The eye became more tolerant of light, the swelling and injection of the conjunctiva began to disappear, and the infiltration of the cornea around the ulcer to clear up, and in ten days he was ready to be discharged.

A., aged 2; sharply defined ulcer on outer portion of left cornea; eye painful and difficult to examine; child strumous but apparently well nourished. Eserine (gr. ss. ad aq. ʒss.) was instilled twice a day. Its good influence here was prompt and satisfactory, and in about a week the child was up running around as usual. The photophobia had disappeared, but there still remained a thin macula. In this case quinine was ordered at first, and followed by dialysed iron as soon as the more violent symptoms subsided. I will also say that two or three times atropine was used at night when the child seemed to be suffering from pain in the eye. This was invariably followed by relief. In a good many cases I have used atropine with eserine in this manner, for its anodyne effect. The effect of eserine on the healthy iris is to produce an unpleasant sensation of contraction, or drawing. This will follow a single instillation, and it is only reasonable to think that this feeling may be greatly increased by the continued use of the myotic.

Duboisine: Two new mydriatics have been recently introduced, Duboisine and Homatropine Hydrobromate. Duboisine is a very valuable addition to the remedial agents used in the treatment of eye diseases. Its action is much more prompt and energetic than that of atropine, but it is also more transient. So far as my observation goes, it is not irritating, or only exceptionally so, and the irritation passes off very soon. It dilates the pupil promptly, in from five to ten minutes, and produces paralysis of accommodation in from ten to thirty minutes. It would not, however, do to depend on the accommodation being paralyzed so quickly, in the ordinary run of cases one would have to test. It is better to use the duboisine three times at intervals of half an hour, and then half an hour after the last instillation to make the test. This allows an hour and a half after the first instillation, which is short enough, for in a good many cases a much longer time will have to be allowed.

Dr S. D. Risley, of Philadelphia, in a very interesting paper on Duboisine, published in the *Am. Jour. Med. Sciences*, April '80, says that from a large group of cases of anomalies of refraction, he found that the average duration of atro-

pine was $5\frac{1}{4}$ days and that the continuance of the paralysis of accommodation was from one to sixteen days. After he had obtained the duboisine, he found that the time was much shortened and averaged $3\frac{1}{4}$ days. This of course was a very satisfactory showing in favor of the new remedy, as it shortened the period of discomfort which naturally follows the use of a mydriatic. It is certainly a reliable remedy for testing anomalies of refraction, and very promptly took the place of atropine. It is also a deservedly popular remedy in treating all diseases requiring mydriasis. It is less irritating than atropine and can be used with equal safety. It is a well known fact observed by all specialists, that now and then atropine causes a violent inflammation of the conjunctiva and eye lid. The latter become puffy and edematous, and a condition of the skin resembling eczema follows. Occasionally granulations of the follicular form will develop, which are extremely obstinate to treat. In a number of these cases where atropine causes irritation I have seen duboisine act kindly, not causing the slightest reaction. We are fortunate, then, in having a reliable mydriatic like duboisine to fall back on when we cannot use the old time-honored remedy, atropine. It is generally prescribed in a gr. iv. aqueous solution, but some prefer to use it not stronger than gr. ij. I have never seen any unpleasant effects follow its use in the stronger solution. I have used it in iritis, irido-choroiditis, ulceration of the cornea, and in fact in all diseases requiring a mydriatic, and found its effects satisfactory.

Homatropine Hydrobromate is the latest addition to the mydriatics, and in many respects possesses very valuable qualities. It produces prompt dilatation of the pupil and paralysis of accommodation, and its effects pass off very quickly. I have examined a large number of cases of ametropia, under its influence, and am prepared to say that it has given good satisfaction. Its principal valuable quality is that its effects pass off in from ten to thirty hours, and accommodation is then regained. If the examination is made in the forenoon, patients are always able to see to read the next morning, and in a few cases, the same evening. Its effects upon the accommodation are so transient that one must watch his patient and make the examination when the paralysis is at its height. It is not likely to come into general use for the treatment of diseases of the eye, but will be used exclusively in the examination of anomalies of refraction, and for diagnostic purposes. It is very expensive, and solutions seem to lose their strength rapidly, so that they must be made fresh every day or two. It is not at all irritating to the conjunctiva, and not likely to produce constitutional effects.

Jaborandi and Muriate of Pilocarpine:—Choroidal affections of the eye are among the most important of all the intra-ocular diseases. They are very frequently met with, and for years past have been studied with special interest. The success in their treatment has been moderately good, but the introduction of jaborandi and the muriate of pilocarpine has given us a greater

percentage of good results than ever was attained before. When given in moderate doses, there is no special constitutional disturbance. The gradual and sometimes rapid clearing up of the vitreous under the use of these remedies is as surprising as it is gratifying.

Ectropion:—Operations for the relief of ectropion, caused by burns, are among the most difficult and unsatisfactory which the oculist has to make. Results have not been encouraging in consequence of the sloughing of the transplanted flap, and many such cases were refused surgical interference entirely. Recently the transportation of a flap without a pedicle, treated after the method of Wolfe, of Glasgow, has been followed by excellent results, and is likely to revolutionize plastic operations around the eye. The transported skin may be taken from the arm or breast. Having been secured in position by two or more stitches, it is covered by gold-beater's skin, and a compress and bandage are applied. The gold-beater's skin is allowed to remain several days, as the process of healing can be seen through it. Successful cases are reported by Wolfe, Wadsworth, Noyes, Mathewson and Aub, of Cincinnati.

Electro-Magnet:—The introduction of the electro-magnet is likely to be a boon to sufferers from penetrating foreign bodies. It has been successfully used in a number of cases, and promises to be of more extensive benefit in future modifications of the instrument, and improvements are likely to be made which will render it more efficient. We all know the fate of an eye with a splinter of iron or steel in it, and if we can rescue only a portion of those unfortunate cases from total loss, we will be achieving a triumph in surgery over which we may be justly proud.

Optico-Ciliary Neurotomy:—It becomes necessary, in a great many cases, to enucleate eyes for penetrating foreign bodies, for chronic irido-cyclitis, and for absolute and secondary glaucoma. Sympathetic inflammation of the sound eye is always to be avoided if possible, and the enucleation of the affected eye is generally resorted to. When we consider the very great importance of saving one eye, the removal of the injured or afflicted one is a small matter, so far as the cosmetic effects are concerned. But if we can, by operative measures, save the globe and at the same time prevent sympathetic inflammation, we are accomplishing something very desirable to a large number of our clients.

The operation of optico-ciliary neurotomy proposes to accomplish this. It is too soon to speak confidently of its results, as it has its advocates as well as its opposers. Several successful cases have been reported, and yet there is considerable hesitation on the part of operators to accept an uncertain for a certain method of ridding a patient of the much-dreaded effects of sympathetic inflammation. The operation is done by dividing the internal rectus muscle, separating the conjunctiva and sub-conjunctival tissue from the

globe back to the optic nerve, severing the nerve, and then drawing the posterior portion of the globe forward and cutting the ciliary nerves close to the sclerotic. The ball is then replaced in its natural position, the internal rectus united with sutures, and a compress and bandage applied. There is seldom severe hemorrhage or other unfavorable symptoms.

There is this in favor of this operation, that we always have enucleation to fall back on in case severing the optic and ciliary nerves is unsuccessful.

Myopia:—The question of myopia and the influence of school life on its development, is still receiving much attention in this country and Europe.

School houses are now being built with reference to light and ventilation, and the changes so long contended for by medical men are slowly being recognized by school trustees and others in authority. It is hard to get boards of trustees and corporations to think that the reform measures which medical men ask for are not in some indirect way to be of benefit to the doctors.

Statistics have been compiled in which it is shown quite conclusively that myopia increases gradually from the primary class to the graduating one. If this depends on imperfectly lighted rooms and badly arranged desks, it is almost criminal not to make the necessary changes for the sake of saving the children's eyes. Doctors know that myopia is a disease, and that myopic eyes are imperfect ones; but there is a prevailing opinion among the laity that a near-sighted eye is strong and will grow stronger as its possessor grows older. This is a delusion that should be dissipated as soon as possible, for its fruits are most unfortunate in many cases.

A great deal might be done through the Superintendents of the public schools, and teachers. They are the ones who will most probably first notice the optical defects. Scholars will complain that they cannot see objects on the blackboard, and will ask for front seats or special privileges in order to see as well as the others. Children with defective eyes should be allowed certain privileges, but the defects in their eyes should be reported to their parents. If myopic children could have their refraction carefully tested, and then the amount of study prescribed for them, it would certainly be to their benefit.

Dr. Just, of Zittan, Saxony, has recently made an examination of a large number of high school pupils, who have the advantages of schoolhouses constructed in the most approved modern manner as regards light, space, and arrangement of furniture, and finds that the percentage of myopia corresponds very nearly with that of other observers who have made examinations where pupils were not so favorably surrounded. He says: "Myopia being as frequent in the new schools of Zittan as in other educational institutions of the same kind, we may fairly conclude that it does not chiefly result from insufficient illumination of the school-rooms, but rather from the

great and increasing demand on the industry of the pupils at home, forcing prolonged labor on their eyes during the evening hours, frequently by insufficient light."

I feel confident from my observations that this statement contains much truth, and I feel that it is a question which should be brought prominently before our educators. We, as medical men, know only too well that the eyes are not the only organs which suffer from the present high pressure system of cramming. Headaches, pain in the back, disordered digestion and stunted physical development, are only a few of the fruits of our present school system.

I have examined a few of the schoolhouses in Cincinnati, and have found the older ones very defective. The rooms were dark and dingy, and the desks (which should be placed so that the light will come over the scholar's left shoulder,) in exactly the wrong position. In one schoolhouse this was the case in thirty per cent., and in another one in forty-one per cent. The new schoolhouses, however, are very well arranged and well lighted.

Color-Blindness :—The question of color blindness is being agitated and will doubtless lead to some wholesome legislation on the subject. Connecticut is the only State which has a law requiring engineers and firemen to submit to an examination for color-blindness. The matter has been brought before the Legislature of Massachusetts and New York and also before Congress. Several of the great railroad lines are taking advanced ground on this important subject, and are making examinations without the compulsion of legislation. The practical consideration of this subject comes from the fact that railroad signals by night are made by means of red, green, and white lights; red meaning danger, green caution, and white safety. On shipboard, the red light is on the port side, and the green on the starboard side.

When we consider the immense travel by rail and water in this country and Europe, we can appreciate the necessity of having men in charge of the trains and vessels with accurate and reliable color sense, so as to recognize the signals. A mistake might be—and doubtless has been—the cause of much loss of life.

The examinations of Helmboltz, Holmgren and others in Europe, and Dr. Jeffries in this country, have demonstrated that color-blindness exists in about one in twenty-five men. Dr. Jeffries alone has examined about 18,000 and found the average to be a fraction over 4 per cent. The examinations in Europe coincide very nearly with this result.

To Prof. Holmgren are we indebted more than any one else for the prominent position which the subject now holds before the public. He thoroughly investigated it from a scientific standpoint, and then applied to the King of Sweden for permission to test the railroad employes. He found 3.25 per cent. color-blind. Laws were immediately framed and adopted re-

quiring all color-blind persons to be discharged who occupied responsible positions on the trains.

In England, France, Holland, Denmark, Prussia, Austria and Italy, the scientific men have taken a lively interest in the subject and many thousands of examinations have been made with the result as before stated of finding about 4 per cent. color-blind. The dangers of this 4 per cent. to the lives of travelers is hard to estimate. The question of color-blindness is a difficult one to discuss before committees and railroad superintendents. We are not yet able in all cases to show them the immediate connection between accidents and the defective chromatic sense of the engineer, fireman, or pilot, but we can show that in some cases this is undoubtedly true. Scientific examinations are being made on this subject, and its great importance will be felt after a while by all the great railroad corporations and steamship lines. Dr. Jeffries says that "here the interest and safety of the community have to contend with ignorance, prejudice, pecuniary considerations and incredulity born of supposed immunity from danger." It is more than probable that many accidents on the ocean as well as on land are due to a misunderstanding of signals. The proofs are not at hand in all cases, owing to the leniency of coroners, juries and the indifference and ignorance of investigating committees, but they are slowly accumulating.

In the N. Y. *Herald* of last Saturday (June 11) I find the following:

"*Color-Blindness at Sea:*—The Supervising Inspector-General of Steamboats, Mr. Dumont, calls attention to a question in which the owners of vessels of all descriptions and classes and, in fact, the public generally are deeply and closely interested. 'Additional proof,' he says, 'is furnished every day that it is necessary that pilots of steam vessels and railroad engineers should be examined for color-blindness. The latest case is that of the pilot of the City of Austin, who, through mistaking the colors of the buoys, lost the vessel. An examination after the accident showed that at the distance of six feet he could not distinguish one color from another.' It is more than probable that a large proportion of what are called mysterious wrecks and disappearances at sea could be accounted for in this way if it were possible to get at the facts. The confusion of testimony that usually takes place in the investigation of a case of collision arises, we may be certain, from a like physical defect in the witnesses. Several of the principal lines of railroad have very wisely taken all possible precautions in this respect, employing no man as engineer who has not passed an examination and proved that his sight is perfect. The same tests should be applied to sailors of all classes, not only on steam but on sailing vessels. It is a reckless, almost criminal, disregard of life and property to permit ships to traverse the seas with practically blind men at the wheel or on the lookout."

OTOLOGY.—Otology has not been at a stand-still, but has made steady

progress, for it has many ardent followers. The anatomy of the ear and the physiology of hearing have been studied more minutely than ever.

Otorrheas are now treated from a more rational standpoint than ever before. The syringe is not used so freely, for the general introduction of absorbent cotton furnishes us the means of cleansing the ear in a thorough manner without the use of so much water. Granulations in any part of the body, if constantly bathed in pus, are likely to become exuberant. The same law holds good in the ear. After ulceration and perforation of the drum membrane, if the ear is not cleansed the pus remains in contact with the mucous membrane of the middle ear and of the external meatus, becomes fetid, and furnishes favorable conditions for the development of granulations. Most of these perforations will heal kindly if the pus and muco-pus are removed frequently enough to keep the external meatus in a comparatively dry condition. If the syringe is used, it should be followed by the use of the absorbent cotton so as to thoroughly dry the external meatus. This treatment can be repeated frequently without causing the patient much pain or annoyance, and if persevered in will bring most of the cases through to a favorable termination. Of course this is done together with inflation of the middle ear by the catheter or air bag. In simple cases astringents are not indicated and can only cause harm. It is only too true that the general routine treatment in such cases is to pour astringents into the ear, which can only act on the dermoid lining of the external meatus and drum membrane.

With regard to the use of the syringe, I would say it would not be well to dispense with its use when the discharge is profuse, but only when it is so small as to amount to only a few drops daily.

Boracic Acid is an invaluable remedy in the treatment of many forms of otorrhea, particularly those associated with granulations springing from the middle ear or the meatus. It should be blown into the ear until the bottom of the meatus is covered with it, for there is no danger of using too much. It is entirely painless. It should be allowed to remain until it is evident that a quantity of pus has again formed, when the syringe or the cotton should be used and the powder re-applied. It is antiseptic and absorbent, and in my hands has given very great satisfaction. I might give you a large number of most gratifying cases showing the excellent results from the use of the remedy but time will not permit. I can only say that I most cordially recommend its use.

Audiphone, Dentiphone, Etc.: These have recently excited great interest among those suffering from deafness. If one could believe the circulars which were sent broadcast over the country, we might look upon deafness and deaf-mutism as among the most insignificant ailments which flesh was heir to. Aurists all over the world hailed the new inventions with joy, for they were only too glad to benefit their numerous incurable cases by this machine,

and thus get rid of them. These inventions have been tried faithfully by the most experienced and reliable men in the profession, and the general verdict is that they are failures. They benefit the patentee and his agents, and only exceptionally the patient.

I have tried the audiphone faithfully and without prejudice, in a great many cases, and have never seen but one person benefited by it. Yet thousands of them are sold every year and still the circulars are sown broadcast to bring in a harvest to the agents.

The artificial ear-drum is another grand delusion for making money. It is sold at an exorbitantly high price, (500 per cent. higher than the instrument maker asks for it,) and is warranted to cure deafness in impossible cases. Among aurists its use has been almost entirely superseded by the simple cotton wad which is a thousand times better and gives relief a hundred times where the rubber drum will once.

Let the profession see that they use their influence against such barefaced misrepresentations as this ear-drum circular contains.

A CASE OF HYPODERMIC INJECTION IN NEVUS.

BY S. HUDSON, M. D., MEDINA, O.

I observed a short article in the last number of the *Recorder* from a correspondent of the *Brit. Med. Jour.* on the danger of hypodermic injections of tincture of iron in nevus. I, too, have had some experience in the use of injections in nevus, though not with the iron. About three years ago, Mr. T., a young man about 20 years of age, came to my office and showed me a small warty excrescence on the end of his left index finger. He informed me that at times it bled profusely, and desired me to take it off. Without further examination or thought, I took my hypodermic syringe with a strong solution of nitrate of silver, perhaps three or four drops, and injected it into the nevus.

In less than five minutes he was suffering the most intense pain and agony; his hand and arm up to his elbow became white and cold; and for three hours we labored constantly, rubbing and bathing it in hot cloths. I finally succeeded in quieting him with morphine, and his father took him home. The next morning I had the mortification to see that two of his fingers were dead, the first and second to the second joint, and I feared from his appearance that he would lose his arm if not his life. We did all we could in order to restore the warmth and color to his hand, but all to no purpose, for in less than a week the index finger (in which I inserted the solution) and the next

one to it were black and dry as far up as the second joint, and his suffering for ten days was terrible. In eight weeks a line of demarkation commenced forming, and I had the *pleasure* of amputating the poor boy's fingers just above the second joint.

I censured, reproached and cursed myself and everybody else. Others had used hypodermic injection in nevus. I had used them before, with no unpleasant results, and why all this trouble? I could readily understand what was the cause of such unpleasant results; the solution had entered a small blood vessel, produced coagulation and thrombus, but it was too late to remedy my mistake. The community, I can assure you, gave me no credit for the matter, and the friends of the boy were advised to prosecute me.

The hypodermic syringe is a great favorite with me, but I do not believe I shall ever use it again in nevus with a solution of nitrate of silver, or tincture of iron.

HYGIENE OF THE LABORING CLASSES.

BY W. J. SCOTT, M. D., CLEVELAND, O.,

Prof. Theory and Practice of Medicine, Med. Dept. Wooster University.

The position which I have held during the last year imposes on me the task of presenting for your consideration some subject worthy of the occasion, and of interest to the profession and the public.

I will, therefore, present for our consideration to-day some conditions involved in the hygiene of laboring people. Many of the trades lead to conditions dangerous to life. This is especially true as the trades are now conducted. I can only refer to some of the more prominent employments, in which great numbers of people are engaged. Take the lead manufacturers, in all their varieties—those who use any lead compounds in their avocations, who use lead instruments, in their business, or who may become contaminated with lead compounds in other ways—and see what a host are exposed in these ways to bad influences for health.

Many of these exposures can be entirely abolished by proper knowledge on the part of the workers, or on the part of the employer. Here we have a large class of persons, exposed to the worst possible conditions for health, composed of quarrymen and stonecutters. Some of these influences can be avoided by the application of dresses to prevent the exposure during the time the people are employed. Millers, and persons employed in handling grain, are exposed to conditions which lead to the same sort of disease, equally fatal in proportion to the number employed. Among wood-workers,

in all varieties, there is an immense number employed—as you will see if you consider the great variety of those works and manufacturing establishments. This great throng is exposed all the time to the dust and dirt which it is possible to make in such shops. And consequently the workmen are exposed to all the worst conditions which can be produced by the manner of doing the work. Those who have had the planning and construction of such works never have thought for a moment how these conditions could have been improved or prevented, and the health of the operative protected. By proper and scientific attention to these subjects, the mortality can be materially diminished. Similar conditions are found in all machine shops. There has not been the least attention paid in the construction of the works, or the manner of doing the work, to protect the workmen from the ill effects of the trade. There is no doubt that often the improvements which would protect the mechanic would also benefit the business, by having the work better and more promptly done. Intelligence in all mechanical processes improves the trade and the material produced. Then, certainly, anything that would attain so desirable an end for all concerned should be done.

Again, in all places where fibre materials are worked, or manufactured, very little account has been taken as to the consequences which would result to those employed in these processes, or whether bad conditions could have been prevented by better architecture or improved processes in the manner of work. In all such shops, where great numbers are employed and the places must be kept warm and are dirty, the atmosphere becomes exhausted of oxygen, and filled with fibre and animal compounds undergoing change; also with cryptogamic growths, bacteria, ecchinococci, and what not. In all these places, and they are very numerous, seldom has means been taken to improve the surroundings for the benefit of those employed, either by ventilation or in any other way. The employed, in great numbers, suffer from lung diseases.

Another large class of sufferers is found among metal workers. Grinders and polishers, and workers on emory wheels, are exposed to conditions daily which will surely shorten life; yet neither the architect nor the machinist, who have had the construction of the works, has paid the least attention to this subject, either in the construction of such works or the manner of operating them, looking to the protection or welfare of those here employed; yet it is true that a proper knowledge of mechanics and the principles of natural philosophy, applied, would remove the causes which lead to disease in such works. In many of the processes employed in the manufactory of the substances derived from petroleum, the men are exposed to the most unwholesome conditions. They are compelled to inhale gases in treating houses, in stills, in paint shops, and in a thousand and one ways, which sooner or later leads to emphysema and heart disease, and to total disability

of those employed. These conditions could often be avoided by proper construction of the works, and taking the necessary precaution to avoid these conditions. But when I have suggested my views to the men employed in such works, they have thought, often, that I did not understand making coal oil. Indeed, those who own the works seem often to consider such suggestions as an attempt to interfere with their business. This is true with many trades and works also. When I have suggested to white-lead workers, grinders and polishers, and workers in dust, the propriety of using some appliance to prevent the inhalation of bad materials, they have said to me, "What do you know about grinding?"

I could enumerate other employments of equal importance, and just as destructive to health. Now, I submit the question whether these subjects should not demand our attention, as conservators of public health; and also to be in a position to treat the sick and afflicted. The public will also see the importance of these considerations when properly presented to them. From our investigation, I am sure that you must admit that in these many ways our mortality is largely increased, by diseases which could have been avoided by proper scientific attention to these relations.

Then somebody ought to have the responsibility imposed on him—to see to these affairs, as a State measure for the common good. There often arises a strong opposition from employers, who are ignorant of the importance of this subject, because they think that such restrictions will interfere with the prosecution of business.

Often, also, in manufacturing places men are exposed to dangers to life and limb unnecessarily, by the manner of arrangement and construction of machinery, which could have been differently arranged without interfering with efficiency. Belts, revolving shafts, revolving couplings, fly-wheels, &c., are undefeuded from all who are necessarily about them and liable at any time by accident, or by carelessness, to be caught and hurt. It is apparent to any person who considers this matter, that most of these accidents might be avoided by proper and intelligent attention, by those in authority.

Especially are objections made in tobacco and segar factories. In these places no attention is paid to the construction of the works. In all such works where they have an engine, the means of changing the air could be easily arranged, and would greatly benefit the employees. In Shoe Manufactories, similar objections exist on account of accumulated dirt kept warm, and the hands, who are often numerous, breathing over and over an exhausted and vitiated atmosphere. So often, I would think generally by my observation, the Editorial sanctum and composing rooms are not above criticism in these respects, yet from here we often receive homilies, on hygiene and cleanliness, for the instruction of other people in such matters. All these conditions are as a rule neglected by those in authority, who have the power to correct

abuses—to the very great advantage to the health of people employed in such avocation, and the mortality be much diminished and the welfare of the community promoted, as well as that of the individual. These examples are sufficient to show that the general mortality is greatly increased in these ways, and that by preventable diseases. If we look over mortality statistics as published every week by the national Board of Health, we see that all manufacturing towns have a high rate of mortality, by such diseases as are produced in these ways, The great majority of them probably induced, not inherited,—and therefore contracted.

There is another source of such diseases very similar in character to those which I have pointed out, which should receive attention from the people first and then from our profession. It is a fact, I believe, that our people, as such, live better and are better clad than any other Nation. Yet I think great numbers, especially of young people comparatively, are suffering from one of the worst diseases by neglect of personal cleanliness, of person and clothing. What I am about to say I mean not as derogatory to the people in the least, but as to their manner of living. It is within the experience of every physician to have some strong and healthy young people come here and go to service in shops and mills, and to know that within a year or two their health fails and they die with consumption. Many of them have a good family history, so far as can be learned from the subject. I have seen the same class in other places and know that it was uncommon for them to suffer as they do here. I have seen hundreds of them digging in the Ohio canal, and sleeping in board shanties, without the general health becoming affected in the least, in the way that they are here. All the men employed on the farms in the Scioto Valley are, as a rule, healthy and they are the same class which suffers here by the score. What makes this difference? Here they live in filthy boarding houses, with perhaps enough to eat, but they sleep in close rooms, several persons in the same apartment, with their clothes saturated with perspiration, or, when the clothes are removed, they are hung in the same room, or, what is worse, in a small closet to ferment and dry. The decomposition which takes place assists very greatly to contaminate the atmosphere, and thus day by day they live in air poisoned with changed animal compounds, until the general health fails, and a cough commences and the subject continues to live in the same way, not thinking or being told that the conditions by which he is surrounded are killing him. It is next to impossible to correct these abuses against proper hygiene. The boarding mistress would show you the door with her blessing, should you say that her house was not clean or that it had been kept in such a way as to lead to sickness among her people. Yet I venture the assertion that the odor produced in such places and under such circumstances, is so peculiar and characteristic that it can be distinguished by the odor imparted to clean

clothing kept in such closets, and is so persistent as to remain for some time after they have been removed and even worn away. I have found the same conditions in well kept private houses, among the help, and brought about in the same way. Very frequently do I meet servants who have come here well and hearty, with rosy cheeks, and, after a few years of service, the health fails, a cough begins, and within the next year they die with consumption. The number who go in this way is not small. Inquire of such persons and often you cannot find anything wrong in the family history. These persons are found among girls who work in cellar kitchens and small places, often overheated, and sleep in small close rooms so as to generate a miasm, which gradually produces the diseases which we all meet so commonly. It may be said that these conditions act as the exciting cause when brought in conjunction with a constitutional dyscrasia. Then we ought to avoid the cause, when it can be done as well as not. These people suffer in these ways ignorantly, but are always offended if they are told that their afflictions have been produced by not taking proper care of their persons and of their clothing. The ladies of mansions are also sensitive if a suggestion should be made that there is anything about the premises not as it should be. From long observation on this question, I am satisfied that there exists in these fruitful sources of disease. Many times in my clinical experience have I been able to tell by my sense of smell where the patient came from and what kind of an atmosphere he breathed.

What can be done to correct so grave a condition? Medication does not do much good, the conditions remaining the same. If you venture to suggest to the patient that a warm bath will be of advantage, you will be met with the fear of cold afterwards. If you suggest to a boarding-house keeper that a more liberal use of warm water and soap would improve matters, you will be told to mind your own business. If you suggest to a lady that her kitchen and dormitory were poorly constructed, and poorly ventilated, and that her servants consequently are suffering from that cause, "Nonsense," she will say, "my house is in perfect order, and there is no cause of disease about it." So it goes, and the people continue to gradually become sick and die, and nothing is done to correct the evil either by the people or the profession. Thus they perish of a disease which they never would have contracted, had their hygienic conditions been better. I am satisfied that people must be taught to realize these facts, to correct so grave an evil. The correction, in the main, is in cleanliness, and the admission of some of heaven's greatest blessings—plenty of fresh air and sunlight—to blow out and away the stink of putrefaction.

Where rests the responsibility, in all these various relations? Not always with the sufferers, for various reasons. They have not the knowledge of the subject to do so. They have not the means nor the power; they must be

just hewers of wood and drawers of water. The responsibility in these discussions must rest somewhere with the architect and mechanics, with the machinist, with operators in business, who are often more ignorant of such affairs than those employed, and often professional men are too illy informed of the principles of mechanics, and the principles of natural philosophy, to have any definite idea on what can be done to correct bad conditions.

EUCALYPTUS GLOBULUS.

BY D. J. SNYDER, M. D., SCIO, O.

Read before the Ohio State Medical Society, June 16th, 1881.

One year ago I thought I should be able to report to this Society at its present meeting the successful growth in this state of the Eucalyptus Globulus, Tasmanian Blue Gum, Fever, or Sainted Tree of Australia. I am compelled to acknowledge disappointment and failure. I procured seed from New South Wales, and minute instruction how to plant, and had the pleasure, last autumn, of having several plants over two feet in height, with every prospect of complete success. The severe winter destroyed every one. Why this should be so, I am as yet not able to demonstrate.

The wood of the tree is extremely hard and compact, is capable of a very fine polish, and is indigenous in the island of Tasmania (formerly known as Van Diemen's Land,) which lies south of the Australian continent in latitude 40° — 43° , $30'$, South, and 140° East from Greenwich. The winters are colder there than in corresponding degrees of North latitude. In Summer the heat is more intense, with less rain and moisture. That the Eucalyptus can be successfully grown in the Southern States there is no doubt.

That it has a salutary influence over malarial poisons we have sufficient evidence in the fact that in Algeria and the Pontine marshes, in Italy, where millions of these trees have been planted by order of the different governments, the greatest hygienic success has been obtained. Tracts of country that were deserted, owing to the malaria abounding, are now, since the Eucalyptus Globulus has been planted, perfectly healthy and occupied.

The French physicians speak in the highest terms of the essential oil obtained from their own trees, showing that difference of soil, climate and habital do not depreciate the excellence of this valuable botanical production.

For much valuable information in regard to the description, habital and general therapeutic value of the Eucalyptus, I am largely indebted to Doctor Henry M. Marshall, of New South Wales, of whom I procured the seed. This eminent physician and microscopist, in a communication to the Cincin-

nati *Medical News*, of August, 1878, says: "The *Eucalyptus Globulus*, in common with the *Eucalyptus* family, sheds its bark annually, but not its leaves. The bark is rich in tannin and tannate matter. It is an evergreen. All the native Australian trees and shrubs are evergreens. Some of the *Eucalyptus* family obtain a vast size; in height, growth, and available timber outrivaling the famed trees of California." It is a rapid grower when once firmly rooted. In California it is not unusual to see a tree of six years growth obtain the height of fifty feet. It is best grown from seed, planted where the tree is to remain; or it can be planted in pots, and, when the trees have attained a proper size, be removed from the pots, either by breaking, or turning out, taking care to leave all the earth in contact with the roots. It being an evergreen, care must be taken with the transplanting. I have no hesitancy in asserting that, with the aid of a hot-house—where the young plants could be protected from excessive frosts during the first winter, the wood becoming sufficiently hardened during the second summer, they would resist the frosts ever after.

The leaves of the young plants are opposite, broadly oval, and have an agreeable aromatic odor. In the second year they become more oblong, and at maturity are from twelve to fifteen inches long, and from four to six inches broad. The mature leaves have a variety of shades and colors. On the same tree is observed, frequently, an agreeable blending of them. They contain a large amount of volatile oil; so much so that when a green leaf is ignited, it burns as brilliantly as a gas jet. Several cities in Australia are lighted with gas made from the leaves. Scattered where fleas and vermin abound, the leaves will banish them as effectually as St. Patrick, according to Irish tradition, did the reptiles of Ireland.

The antiseptic properties of eucalyptol (the essential oil of the *eucalyptus globulus*), have been tested to prove its efficacy. In Australia the medical profession is advocating, and some have adopted, the method of disinfecting the hospitals and other public buildings by growing the *eucalyptus* in large boxes through the wards and courtyards. The way they do it is to plant the seed in large boxes or tierces, filled with rich, sandy loam, and let them remain until the trees have attained the height of the ceiling, when they are removed and others put in their place. It is claimed by close observers that the experiment has proven highly beneficial; lessening the danger of contagion by the antiseptic properties, and anti-malarial influence.

The medicinal properties of the *eucalyptus* are reputed to be as varied and specific as those of the *cinchona*. Dr. Marshall has successfully employed the oleo-resinous product obtained by distillation from the leaves; also the aqueous infusion and decoction, together with the alcoholic extract of the leaves and small twigs, in the following affections: Acute and chronic articular rheumatism, by accupuncture and rubbing in the distillate, augmenting

the therapeutical effect by internal administration. After all other remedies have failed, by administering the aqueous infusion and decoction, assisting the action by half-grain doses of hydrarg. chlorid. mit., he has succeeded in effectually curing dysentery. In bronchitis the distillate has proved valuable when applied over the thoracic region. Facial neuralgia has yielded promptly to the application of the distillate externally and internally. In croup and diphtheritic affections swabbing the fauces with a strong decoction has proved very valuable. In malarial affections, the different preparations of the eucalyptus have proved most successful. The essential oil is now being successfully employed in gonorrhea and gleet. Great success in asthma has been attained by means of smoking the leaves as cigarettes.

Much more could be written on the virtues of this remarkable tree, as it has, in the last year, attracted a wonderful amount of attention from physicians and sanitarians.

If any member of the profession would like to make an effort to grow them in this climate, I will cheerfully forward, by mail, pure seed with instructions how to plant.

WEST VIRGINIA DEPARTMENT.

FOURTEENTH ANNUAL MEETING OF THE WEST VIRGINIA STATE MEDICAL SOCIETY.

The Fourteenth Annual Meeting of the Medical Society of the State of West Virginia assembled in the Chamber of the Supreme Court of Appeals, in the State Capitol, May 18th, 1881, at two o'clock P. M., and continued its sessions two days, Dr. W. F. Vankirk, President, being in the chair.

The following members were in attendance during the meeting: Drs. B. W. Allen, Geo. Baird, W. J. Bates, Sr., W. J. Bates, Jr., B. C. Bland, H. W. Brock, L. S. Brock, J. H. Brownfield, R. H. Bullard, C. F. Boyers, T. B. Camden, M. Campbell, J. A. Campbell, L. R. Charter, W. K. Curtis, Jno. T. Carter, W. M. Dent, Sample Ford, R. R. Frey, Jno. Frissell, R. W. Hall, G. B. Harvey, R. S. Harvey, R. W. Hazlett, E. A. Hildreth, Fleming, M. F. Hullihen, S. L. Jepson, J. M. Lazell, H. N. Mackey, P. C. McLane, E. C. Myers, J. H. Pipes, J. E. Reeves, J. B. Reed, Collie Shriver, S. B. Stidger, A. T. Stifel, C. F. Ulrich, W. F. Vankirk, J. T. Whitsett, L. L. Wilson.

After roll-call, Dr. Geo. Baird, of Wheeling, Chairman of the Committee of Arrangements, delivered the address of welcome, which was characterized by solid good sense and much warmth of feeling. He deprecated that hasty belief in injurious reports, which has so often placed an impassible barrier between those who would otherwise have been good friends, in the following words :

“ When patients present themselves with an account of their ailments we carefully analyze their statements, and believe only such parts of them as are corroborated by their symptoms. We do not pretend to believe anything which has not an apparent foundation of truth. How different is our usual course when the same patients, through pretended friendship, come to us with an account of the manner in which we have been censured by a brother physician—instead of asking ourselves if this can possibly be so, or why it should be so, we act hastily and become embittered at persons who more than likely never harbored a wrong thought towards us. By our intercourse with each other in our yearly meetings erroneous impressions are done away with and true friendships are formed among those who might otherwise have remained at a perpetual distance. If no other good resulted from attendance in our meetings than this, the time spent in so doing would be amply compensated for.”

He commended the energy and zeal of those who carried through the Legislature of West Virginia, the act establishing a State Board of Health and Regulating the Practice of Medicine, and predicted much good to the people by its careful and proper execution, and in conclusion, after expressing the hope that the sessions might prove harmonious, extended to the non-residents of Wheeling the hospitalities of the city.

First Vice-President, Dr. James H. Brownfield, of Fairmount, was then called to the chair, and Dr. W. F. Vankirk, of Grafton, the President of the Society, delivered his address, which evidently afforded much pleasure to the members of the Society, and, in its sentiments, expressions, and literary construction, was an effort of which they may well be proud. His description of the character of a true physician was a noble one, and his commendation of the fine sense of honor that should actuate all his dealings with his fellows and patients, was a specimen of that higher kind of philosophy which is better than learning, culture, any form of scientific attainment, or, in fact, all the teaching of the schools.

He says : “ What is learning—what is professional skill without the quickening power which springs from a high moral character ?

“ It allows no personal advantage, no selfish indulgence, to constitute the measure of right and wrong ; and without it the physician cannot meet the demands of his profession, nor satisfy the just claims of those who commit health and life to his care. If we desire the elevation of the medical profession ; if we lament and deplore the evils which environ it ; if we are sincerely anxious to improve the *esprit de corps* of the Medical Society of the

State of West Virginia, let us begin the work by a rigid cultivation and practice of those cardinal virtues which constitute the character of a high-minded gentleman.

“ ‘Above all, to thine own self be true,
And it will follow as the night the day,
Thou canst not then be false to any man.’ ”

He called attention to the power of union in the efforts of the Society, and the considerable results which zeal and energy can accomplish. He also referred at considerable length to the new State Board of Health law, and called upon the Society to make this the special object of their care, and give it their active co-operation. In conclusion, he declared “a prosperous future is before us. Let us do our whole duty and enjoy the rich reward.”

Dr. Bates, Sr., introduced Dr. J. W. Hamilton, of Columbus, O., who was invited to a seat on the floor, and to participate in the proceedings of the Society. Dr. Bates also introduced Dr. Wm. T. Wills, of Pomeroy, O., who was received in a similar manner.

Dr. B. W. Fisher, of Bridgeport, O., was introduced by Dr. Reeves, and invited to participate in the proceedings.

The President filled vacancies in the Board of Censors by appointing Dr. B. W. Allen and S. L. Jepson, of Wheeling, and Dr. R. R. Frey, of Portland.

Dr. C. F. Ulrich, of Wheeling, read a voluntary paper of considerable merit, entitled “A Few Hints Relative to Elevating the Standard of the Medical Profession,” which was referred for publication. Dr. B. W. Allen, of Wheeling, reported a case of ovarian tumor (colloid) which he had removed with fatal result. Dr. Allen's paper was one of very great interest, and deserved the consideration that was given it. Dr. Hamilton made some instructive remarks on the subject, and received therefor the thanks of the Society. Dr. Allen's paper was referred for publication.

SECOND DAY'S PROCEEDINGS.

There being no report from either of the Standing Committees, on motion of Dr. Reeves, the following resolution was adopted: *Resolved*, That hereafter it shall be the duty of the Secretary to notify in writing all members of standing committees of their appointment, immediately after the adjournment of the meetings of the Society.

Dr. S. L. Jepson, of Wheeling, read a paper on “The Management of Early Abortions;” but as he did not desire it printed in its present form, on motion he was requested to prepare a paper on the subject for the forthcoming volume of Transactions.

Dr. L. R. Charter, of West Union, offered the following resolution, which was adopted: *Resolved* that this Society is not responsible for the opinions expressed by authors of papers published in its volume of Transactions.

Dr. Jno. Cook, of Bridgeport, O., was introduced by Dr. Hildreth, and invited to participate in the proceedings.

Dr. Wm. J. Bates, Sr., chairman of the Board of Censors, reported a careful investigation of the charges brought by Dr. Mackey against the Drs. Brock, which report recommended that "the charges be dismissed;" and it was so ordered by the Society.

The election of officers resulted as follows:

President, DR. JAMES E. REEVES, of Wheeling.

1st Vice President, DR. FLEMING HOWELL, of Clarksburg.

2d Vice President, DR. G. B. HARVEY, of Philippi.

3d Vice President, DR. W. K. CURTIS, of Wellsburg.

Treasurer, DR. JNO. A. CAMPBELL, of Wheeling.

Secretary, DR. S. L. JEPSON, of Wheeling.

Wheeling was, on motion of Dr. Bates, Sr., unanimously chosen as the next place of meeting, and Dr. Geo. Baird appointed chairman of the Committee of Arrangements which consists of all the members of the Society residing in Wheeling.

After the passage of sundry resolutions of thanks, the Society adjourned; and thus ended one of the most pleasant meetings ever enjoyed by the members. At the Banquet, at the New McLure House, on Thursday evening, there was a perfect overflowing of soul. Toasts and responses concluded the exercises.

WEST VIRGINIA REPRESENTATIVES.—West Virginia was represented at the Richmond meeting of the American Medical Association, last month, by Drs. N. D. Baker, of Martinsburg; J. O. Wall, of Huntington; C. Shriver, of Bethany; L. R. Charter, of West Union; J. E. Kendall, of Wirt Court House; and James E. Reeves, of Wheeling.

BATTLE OF IDEAS.—Every great battle of ideas fought in this country has been decided on Virginia soil; but no example is afforded in the history of American triumphs where both parties came off alike victorious, as in the battle at Richmond, which settled the ethical question concerning the Homeopathic difficulty in the University of Michigan. Dr. Davis made the greatest speech of his life—Dr. Dunster made the greatest speech of his life—the antagonism was powerful and complete—Dr. Billings offered a substitute, which was seconded by Dr. Davis, and Dr. Dunster said, *Amen!* The Association was happy.

STATE BOARD OF HEALTH.—The law establishing a State Board of Health and Regulating the Practice of Medicine and Surgery in West Virginia, went

into effect the 8th of June. The following gentlemen, appointed by Governor Jackson, constitute the Board :

First District.—DR. JAS. E. REEVES, Wheeling, for the term of six years.
DR. GEO. B. MOFFETT, Parkersburg, for the term of two years.

Second District.—DR. GEO. H. CARPENTER, Romney, for the term of two years. DR. C. T. RICHARDSON, Charlestown, for the term of four years.

Third District.—DR. A. R. BARBEE, Point Pleasant, for the term of six years. DR. ISAAH BEE, Princeton, for the term of four years.

It was made the duty of the member first named on the list of appointments to call the Board together for organization. This was performed by appointing the 21st day of June the time, and Wheeling the place for the first meeting.

It is believed by the writer that the Board starts out upon its important labors with the hearty good will and complete indorsement of every member of the regular profession in the State ; and thus encouraged and supported it cannot fail of success.

The law delegates a responsible trust to local or county boards of health. In each county there will be appointed by the State Board three persons to act in this capacity, and much will depend upon the manner in which they perform their part. Besides using their very best energies to enforce the law in every particular, it may be reasonably expected that they will use the power of their influence, individually and collectively, to secure from the Legislature, next winter, such additional appropriation of money as shall be deemed necessary to maintain the State Board of Health, and give it life and activity. To this end they should interview their county and senatorial representatives ; present the great importance of observing hygienic rules ; and the benefit accruing to all classes of the people by a rigid enforcement of health laws. In other words : "That public health is public wealth."

PHARMACEUTICAL ASSOCIATION.—Another encouraging sign of progress in West Virginia is the establishment of a State Pharmaceutical Society, which was the immediate outgrowth of the law passed last winter, regulating the practice of pharmacy and the sale of poisons.

The meeting for organization was held in Wheeling, May 30th and 31st, and was a success, about 160 druggists being present. The officers of the association are :—President, S. Laughlin, Wheeling ; First Vice-President, Ed. L. Boggs, Charleston ; Second Vice-President, D. C. Williams, Jr., Martinsburg ; Secretary, W. I. Boreman, Jr., Parkersburg ; Treasurer, C. D. Carney, Fairmount.

After the adoption of a constitution and by-laws, and the appointment of sundry persons to prepare papers to be presented at the next annual meeting, in Wheeling, considerable discussion took place concerning the law, which

was found to contain some glaring defects, especially in regard to the sale of poisons. The imperfections were set forth in a report of a committee appointed for that purpose, and the recommendations of the committee looking toward present relief, and prospective amendment of the law, were unanimously adopted by the association.

Much attention was paid the visitors by the citizens of Wheeling, and there is every reason to believe that all were so impressed with the pleasure and profit of their annual meeting that the future of the Pharmaceutical Association of West Virginia may be regarded as bright and promising.

The law provides for the appointment, by the Board of Public Works, of three Commissioners of Pharmacy. These offices have been filled by the selection of Mr. Edmund Bocking, of Wheeling, the parent of the bill; Mr. E. L. Boggs, of Charleston; and Mr. J. L. W. Baker, of Martinsburg.

THE FIRST CONTRIBUTOR.—Section 14 of the West Virginia State Board of Health law reads:

“Any itinerant physician who shall practice, or offer to practice, medicine in this State, or who shall, by writing or printing, or any other method, publicly profess to cure or treat diseases, injuries, or deformities, shall pay to the State Board of Health a special tax of fifty dollars for each and every month and fraction thereof he shall so practice.”

Three days after the law went into effect, an Ohio “itinerant physician” paid \$50 for his special privilege in the city of Wheeling.

MEDICAL SERVICE TO THE POOR.—Dr. L. D. Wilson has been re-elected physician to the county poor residing in the city of Wheeling. He has held this office six successive terms, always discharging his duties acceptably to the County Commissioners, and with credit to his profession.

REVIEWS AND BOOK NOTICES.

Prices are always inserted when furnished by the publisher, or when obtainable from the bookseller.

The Hygiene and Treatment of Catarrh. By Thos. F. Rumbold, M. D. Published by Geo. O. Rumbold. St. Louis. 1881. Cloth: 8vo., pp. 473.

The literature of laryngology was for a few years limited and select. It was all worth reading. With the growth in importance of the specialty, has come a flood of trash from book-makers. In the volume under review the

author has gone to the extreme limit of a specialist, and sees almost nothing but catarrh. He says catarrh causes neuralgia in the arm *via* Wrisberg's nerve and the spinal column; "Every victim of asthma has nasal catarrh;" "dyspepsia is in many cases the result of catarrh;" "disease of the brain results from extension of the inflammation through the plates of the ethmoid." Such remarkable statements as these, so universal and positive, ought not to go unchallenged. We can not imagine how a man can say, "There are many persons whose ill temper depends on catarrh," and at the same time insist that this ill temper is a cerebral disturbance, due to the extension of the nasal inflammation by continuity of structure.

The book is divided in two parts: 1. Hygienic and Sanitary measures. 2. Therapeutic measures. In part first are discussed such subjects as exercise, clothing, bathing, the feet, colds, ventilation, temper, tobacco, &c. The information there is trite and tiresome. Such common place remarks as this are frequent: "If the air from an open window blows directly on the bed, a curtain should be so interposed as to prevent the draught from striking the sleeper, *or the bed should be moved out of the draught.*" In so elaborate a treatise, where no detail is shunned, one wonders why the suggestion of closing the window was omitted, or an invocation to Old Probabilities recommended. The above quotation is, to say the least, harmless; but we protest with our entire sanitary force against this astonishing statement: "Ablutions should not be performed oftener than one or two weeks in warm weather, and may not be required at all during cold weather." Common observation will demonstrate the tonic effect of cold frequently applied has removed nasopharyngeal catarrh.

Some of the hints given under tobacco are temperate and good. The author once loved the weed, and his pleasant memories restrain him from too severe a chastisement.

Part second, on Therapeutic and Operative measures, is more readable, and not so useless as part first. He uses Tobold's lamp and does not mention MacKenzie's. His instruments for local applications are sprayers; but in this connection he fails to refer to Tass's instrument—by far the best. His suggestion that every operator should learn to make and mend his own sprays, is very timely. His medicines for local application are mainly carbolic acid, borax and alkaline solutions, and "*vaseline sprays.*" The treatment is not very clearly laid down, but as far as shown would prove insufficient for the severe forms of catarrh.

Nasal stenosis and hypertrophy of mucous membranes over turbinated bones, should in a work on nasal catarrh receive careful and elaborate attention. Without doubt these conditions are potent in continuing the disease in the vast majority of very chronic cases. This hypertrophy can not be removed by simple means very often. Cauterization, chemical or galvanic,

may be necessary, and tearing away with polypus forceps, though apparently barbarous, is efficient and occasionally required. Some of the most difficult problems that present themselves to the laryngologist, concern nasal stenosis; and it is to be regretted that the author has dismissed the subject so curtly.

Transactions of the Illinois State Medical Society, 1880.

This is a nicely bound volume of 227 pages, although the papers occupy but 164. The address of the President, Dr. E. Ingals, of Chicago, is devoted to sanitary matters, especially the sewerage system and water supply of Chicago, and house and sewer ventilation.

Dr. Caldwell's report on Practical Medicine, is largely devoted to Diphtheria, which he regards as distinct from croup. He advises isolation of the sick, but—strange to say—offers no specific treatment; he finds that above 30 per cent. of his cases terminate fatally. Locally he used: R. Tannin, ʒij; alcohol, ʒj; water ʒij. Internally he used Dr. Thompson's bromine mixture; made by adding one ounce of bromine to two ounces of a saturated solution of potassium, with enough water to make four ounces. Dose, 5 to 10 drops, diluted and sweetened, every three hours. He also considers pneumonia, which has been more prevalent than usual. The treatment of this consists in opiates as needed, stimulants—alcoholics and carbonate of ammonia—and quinine to reduce heat. One of his correspondents calls five grains of quinine a "massive" dose, while another, whose gustatory nerves must be sadly demoralized, speaks of hydrobromic acid as a "pleasant" solvent for quinine.

Dr. Haller, of Vandalia, reports an unusually severe epidemic of mumps. In a large majority of the cases there was metastasis to the testes; there were very few cases of metastasis in females. The left testis was almost invariably involved. In some cases there was metastasis to the brain. There were no fatal cases, though nearly every unprotected person in the town had the disease, nor were the testicles permanently injured in any case.

Drs. Lee and Fenger report on Tracheotomy in Croup and Diphtheria; of 22 patients operated on by them, nine died. They urge early operations.

Dr. F. H. Davis—whose untimely death Science yet mourns, presents a valuable paper on Inhalations in the Treatment of Pulmonary Diseases. In the first stage of acute catarrhal bronchitis, when, with hyperemia and swelling of the mucous membrane, there is suppression of the normal secretions, with harsh, dry and hard cough, the inhalation of a few drops of oil of turpentine, sprinkled on a sponge, will give immediate relief. This should be repeated at short intervals. When, however, the stage of excessive secretion of pus, or muco-pus, has arrived, carbolic acid inhaled after the same manner is efficient. Eucalyptol may also be thus used. In the dry, hacking irritative cough of incipient phthisis, inhalation of the vapor arising from hot water (Oss) to which paragoric (ʒi—ij) has been added will give great relief. Oil

of Canada pine may be added. In the suppurative stage, the carbolic acid may be used.

The report on Surgery does not amount to much. On the basis of a single case, in his own practice, in which primary union occurred in amputation of the thigh, after an attempt at Listerism, the reporter asserts that any surgeon who does not employ this plan "richly deserves the censure and condemnation of a suffering people."

Dr. Cole reports two cases of what he calls "conservative" surgery. The first case was one of compound dislocation of the ankle, with fracture of the malleolus and fibula. The tibia "protruded some four inches, and was perfectly denuded of all tissue." The woman was 51 years old, and weighed 200 pounds; the accident occurred in summer, and the "heat was extreme." Reduction was effected, cold water applied—carbolyzed, and the patient recovered, after the removal of several pieces of dead bone. To this particular patient, the result is undoubtedly eminently satisfactory. But physicians who may be led by this report to treat similar cases in a similar manner, will lose more patients than they will save limbs. There are few surgeons who, if a case of such injury *as described* presented in their own persons, with such surroundings as to flesh, age and temperature, would not insist on immediate amputation. The termination of a case, in medicine or surgery, by no means necessarily confirms the diagnosis, or justifies the treatment.

The second case was one of crush of the foot, also treated tentatively; but here there was little question as to the propriety of the procedure.

The report of the Committee on Obstetrics recommends the establishment of schools of practical obstetrics in connection with medical colleges. One of the members adds, as a separate report, three old nurse's tales of maternal impressions, which he adduces as "additional facts," though apparently only known to him by hear-say.

Dr. Herriott strongly recommends the use of anesthetics in labor. He is in error, however, in his belief that no deaths have occurred from such use.

Dr. Lucinda H. Corr thinks that neurasthenia is a very constant attendant upon uterine disease, but that the latter usually antedates the former, and that treatment should be addressed to both.

Dr. Montgomery reports on Ophthalmology and Otology. He reports a case, with recovery, of double optic neuritis from a violent fit of anger. After speaking of the dangers attending suppurative inflammation of the middle ear, he comes to the treatment. Here first of all he insists very properly on cleanliness, to be secured either by the warm water douche or by absorbent cotton. Pain is best relieved by small doses of opiates, combined with full doses of chloral and bromide of potassium. In the use of other remedies he does not differ from the standard authors. He speaks highly of the paper artificial drum. In a further report on Ophthalmology, Dr. Everett takes occasion

to recommend the treatment of acute conjunctivitis by means of cold compresses, frequently renewed; after the method of Knapp.

Croup and Diphtheria—their Identity or Non-identity, is ably discussed by Dr. H. Z. Gill, who concludes that the two diseases are identical. While we do not agree with him in his conclusion, the question is one which this generation will hardly see settled. He added, to his list of last year, 22 cases of tracheotomy (for membranous laryngitis), making 129 in all; with a percentage of recoveries of 28.

The Illinois Society is a delegate body, and this volume represents a very fair amount of work.

Clinical Illustrations of Favus, and its Treatment by a New Method of Depilation; by L. Duncan Buckley, A.M., M.D., Attending Physician for Skin and Venereal Diseases at the New York Hospital, Out-patient Department; late Physician to the Skin Department, Demilt Dispensary, New York, etc. Reprinted from the Archives of Dermatology. New York: G. P. Putnam's Sons. 1881.

The author first removes the affected hairs, and then applies various remedies to the affected surface, among which he prefers a four-grain solution of corrosive sublimate.

To remove the hairs, he uses sticks of adhesive materials, made as follows:

R.	Ceræ flavæ	ʒiii.
	Laccæ in tabulis	ʒiv.
	Resinæ	ʒvi.
	Picis Burgundicæ	ʒx.
	Gummi Dammar	ʒiss.

M.

After the ingredients are thoroughly incorporated, the mass is rolled into sticks of various sizes, from one-quarter to three-quarters of an inch in diameter, and cut off in lengths of two or three inches. The idea of the different sizes is that the work may be rapidly done with the broader sticks where a large surface is to be gone over; while the thinner ones fit small irregularities, or can be applied to isolated spots. In the employment of these sticks the hair should be cropped short, about one-eighth of an inch long, over the part to be treated. The end of the stick is heated in flame, and pressed quickly upon the hair, with a slight rotary or twisting motion, until it rests upon the scalp. It is to be left on until quite cold, and is then removed by bending it over and drawing the hairs in succession even with a slight twisting motion. When the stick is removed from a greatly diseased patch of favus which has still much hair, the end is as thickly set with the bristling hairs as can be imagined, resembling a very fine brush. The best method of preparing the stick for a second application is to burn the hairs in the flame of the lamp, and wipe the end of the stick firmly on a sheet of paper. This both destroys the parasite in the hairs extracted and leaves a smooth surface ready for subsequent use.

I.—I.—5.

A Medico-Legal Treatise on Malpractice, Medical Evidence, and Insanity, Comprising the Elements of Medical Jurisprudence; by J. J. Elwell, M. D., one of the editors of the new edition of Bower's Law Directory, etc. Fourth edition, revised and enlarged. New York: Baker, Voorhis & Co. 1881.

This is a royal octavo volume of about six hundred pages, bound in legal calf. It is written by a Doctor who once practiced medicine, but who has for many years been a member of the Cleveland bar. The first edition was issued twenty years ago, and had a favorable run. Periodical revisions have supplied the original text with relevant medical and legal matters as they have subsequently transpired.

All doctors, but especially experts, will find in it valuable data. It clearly demonstrates the exceptional culture with which the author was equipped.

A careful study of the chapters on the doctor's obligations and rights would, without doubt, save many from vexatious litigation, if not positive penalties. The first-half gives the needed information on malpractice. The remainder deals with abortion, medical evidence, insanity, poisons, infanticide, and inquests.

John Hunter and His Pupils. By S. D. Gross, M. D., LL. D., D. C.L., Oxon., LL. D., Cantab. Professor of Surgery in the Jefferson Medical College; President of the Philadelphia Academy of Surgery, etc. Philadelphia: Presley Blakiston, 1012 Walnut St. 1881.

The writing of a biographical sketch of the founder of Scientific Surgery, the great John Hunter, could not have been assigned to a worthier person than to the venerable Prof. S. D. Gross. This sketch of Hunter and his pupils should be in the library of every physician. Written in the attractive style characteristic of the distinguished author and holding up to view the wonderful achievements of the great pioneer of modern surgery, it will serve to stimulate the energies of every reader.

The profession stands under another great obligation to Prof. Gross for this memoir. It is elegantly presented with a steel engraving of Sir Joshua Reynold's celebrated painting.

The Relations of the Marine Hospital Service of the United States, to Commerce, the Public, and the Medical Profession; being a report of the Committee of the Medical Society of the State of California, Showing the character, objects and inutility of such services. San Francisco: 1881.

We have read this report with surprise and edification. We had never before thought of examining into the matter; but are now fully prepared to endorse the conclusion they have reached—that the Marine Hospital Service is not a "charity," but an unmitigated imposition upon the class of people who are ostensibly its beneficiaries. Its operation on the "wards of the Government" is an encouragement to debauchery and vice.

Wood's Ophthalmic Test Types. The price has been reduced to \$5. They may be obtained through any book-seller.

Lectures on Diseases of the Nervous System, Especially in Women; by S. Weir Mitchell, M. D., Member of the National Academy of Sciences; Physician to the Orthopedic Hospital and Infirmary for Diseases of the Nervous System; Fellow of the Philadelphia College of Physicians; Member of the New York Academy of Medicine, etc., etc., etc. Philadelphia: Henry C. Lea's Son & Co., 1881. Pp. 238. Price \$1.75. Columbus: Geo. W. Gleason.

We know of no one better qualified than Dr. Mitchell to write on these subjects. He says in his preface: "The lectures which compose this volume deal chiefly with some of the rarer maladies, or forms of maladies, of women. Many of them are original studies of well-known diseases, and others deal with subjects which have been hitherto slighted in medical literature, or which are almost unknown to it."

He first writes of hysterical paralysis, and takes the sensible view of it, that speedy cures cannot be hoped for in all cases, but that progress will be made rather by "slow, steady, hopeful training of the will-powers through every day effort, which needs some caution not to err in the way of excess."

Next we have chapters on hysterical motor ataxia and paresis, mimicry of disease, spasmodic affections, chorea. Chorea he finds to depend markedly on meteorological conditions. The month of March brings the most cases, while storms have a manifest bearing.

In writing on hysterical aphonia he details a method of teaching the patient to talk. In closing the book, he gives his latest views as to treatment by seclusion, rest, diet, etc., as enunciated in his little work on Fat and Blood. The book has been an exceedingly interesting one, and contains many valuable hints as to diagnosis and treatment.

Medical Electricity, a Practical Treatise on the Application of Electricity to Medicine and Surgery; by Roberts Bartholow, A. M., M. D., LL.D., Professor of Materia Medica and General Therapeutics in the Jefferson Medical College of Philadelphia; Fellow of the College of Physicians of Philadelphia; Member of the American Philosophical Society; Honorary Member of the Medical and Chirurgical Faculty of Maryland, etc., etc., etc. With ninety-six illustrations. Philadelphia: Henry C. Lea's Son & Co., 1881. Columbus: Geo. W. Gleason. Cloth: pp. 257: \$2.50.

The author writes this book for two classes: students who know little or nothing of electricity, and practitioners who by neglect have allowed their knowledge to become musty. He has, therefore, made his book simple in statement, and full in details. The book is simply an exposition of electricity for remedial purposes, made by a general practitioner for the use of other general practitioners. The first part is devoted to electro-physics—magnetism, static electricity, dynamical electricity, forms of galvanic combinations, electro-magnetism, magneto-electricity, batteries, and care and manipulation of batteries. The second part treats of electro-physiology, the third of electro-diagnosis. The most practical chapters of the book are those of parts four

and five, on electricity in medicine and in surgery. Under the latter he describes Trouve's use of the Plante cell by which, by means of the polarization current, electricity can be stored up for subsequent use in galvano-causty, or for other purposes where a large amount is needed for a few minutes use. A few pages on Thermo-electricity complete the book.

While this work will not add to the knowledge of the specialist in electricity, it will be gladly welcomed by those for whom it was written, who, while anxious to utilize this powerful therapeutic agent, have found themselves mystified rather than instructed by the perusal of the books written by these same specialists,—written, indeed, rather, perhaps, to magnify the apparent knowledge of their authors than to increase that of their readers.

Hemiopia; Mechanism of its Causation on the Theory of Total Decussation of the Optic Nerve Fibres in the Optic Tract at the Chiasma (Optic Commissure.) By Wm. Dickinson, M. D. St. Louis. 1881.

The author formulates his views as follows, viz :

1st. Diseases involving the optic tract of *one* side will produce total blindness of the eye on the opposite side ; and not bilateral hemiopia.

2d. Diseases affecting either lateral angle of the chiasma, involving both the optic nerve fibres entering and also those leaving it, will produce bilateral hemiopia ; and not *nasal* hemiopia in *one* eye.

3d. Diseases affecting the posterior angle, in the median line, involving the optic nerve fibres of *both* tracts that enter the chiasma, will affect the outer half of each retina and produce *nasal* hemiopia ; a form utterly inexplicable on the theory of partial decussation, and

4th. Disease in front of the commissure will affect the inner halves of each retina, and produce temporal hemiopia ; the phenomena of which are alike explicable on either theory.

Mandelstamm epitomizes the entire subject in the brief, terse, oracular declaration "no facts yet contradict the doctrine of total decussation ; but anatomical investigations, physiological experiments and clinical experience harmonize to confirm it."

An Elementary Treatise on Practical Chemistry, and Qualitative Inorganic Analysis, specially adapted for use in the laboratories of colleges and schools, and by beginners. By Frank Clowes, D. Sc., Lond., Fellow of the Chemical Societies of London and Berlin ; Fellow of the Institute of Chemistry, etc., etc., with illustrations. From the third English edition. Philadelphia : Henry C. Lea's Son & Co. 1881. Cloth ; price, \$2.50.

This book is sufficiently varied and comprehensive for the ordinary scholar or medical student. The language is simple, the author evidently aiming to avoid technical terms as much as possible.

The completeness of the work and its simplicity are such as to make it valuable for reference, but especially does it deserve a place in every student's library.

The Popular Science Monthly for July, 1881.

A very striking article on The Races of Mankind opens the Popular for July. It is an abstract from the new and admirable work of E. B. Taylor, F. R. S., on popular anthropology. The paper is profusely illustrated with finely executed representations of all the leading modifications of the human family, and we have nowhere seen so excellent a summary of the distinctions and characteristics of the races and tribes of men as are exemplified in this comprehensive article. Dr. N. H. Egleston has an instructive account of the European Schools of Forestry, which is now most opportune, as there is in many localities in this country a deepening interest in the question of the destruction and preservation of the forests. There is a second paper by Professor Alexander Graham Bell on the Production of Sound by Radiant Energy. It is copiously illustrated, and completes the exposition of one of the most original and promising of the scientific discoveries of the present age. Dr. Oswald's paper on Sleep is not only most instructive, but is so fresh, racy, and pungent, that those who read it will be sure to remember its impressive lessons. By far the most valuable paper of this number is, however, that by Herbert Spencer on Consultative Bodies, in his discussion on The Development of Political Institutions. The politicians, of course, do not care for such expositions, being occupied with those lofty and permanent public considerations of which we have recently heard so much from Washington and Albany, and in which the intelligent American people have been so deeply absorbed. There are, however, a few students of the principles of political science who will continue to appreciate important contributions to the historic development of the great elements of civil government. Henry MacCormac writes on How to prevent Drowning, and says there is no earthly need of anybody's drowning whether he can swim or not, if he will only exercise the common intelligence of brutes. There are a number of other valuable papers, which space forbids us to mention. The departments are full and varied, and the number is one of unusual attractiveness.

New York: D. Appleton & Company. Fifty cents per number, \$5 per year.

North American Review for July bears the usual characteristics of timeliness. Carl Schurz leads off with a suggestive paper on "Present Aspects of the Indian Problem," in which he discusses the Indian obstacle in the way of the country's development, the harmonizing of the habits, occupations and interests of the red men, the necessity of educating their youth, the making of the men themselves small land proprietors, and the offering of inducements to them to sell for a fair compensation the lands they do not cultivate. Next a caustic writer gives the views of "A Yankee Farmer" on "The Religious Conflicts of the Age," to the discomfiture of the modern Agnostic, Moralist and Evolutionist. Another trenchant article is "The Power of Public Plun-

der," by James Parton, which appeals to the sons of our men of character and wealth, on patriotic grounds, to enter into politics, and become the safeguards of their country against rings and bosses. Mr. Henry George dwells on "The Common Sense of Taxation." "The Cost of Cruelty" is presented by Mr. Henry Bergh, and "A Study of Tennyson" comes from the pen of Mr. Richard Henry Stoddard.

The Illustrated Scientific News, of New York, is an extremely interesting record of the sciences and their applications in the arts and industries. The number before us contains, among many other articles, descriptions of cut-glass table ware, asphaltum, silhouettes, velocipede hand-car, steel steamers, ironclads, weaver birds, the gorilla, fish culture, and a railway cremation furnace. Price, \$1.50 a year.

An Introduction to Pathology and Morbid Anatomy; by T. Henry Green, M. D., Lond., Fellow of the Royal College of Physicians; Lond., Physician to Charing Cross Hospital, and Lecturer on Pathology and Morbid Anatomy at Charing Cross Hospital Medical School, etc., etc. Fourth American, from the fifth revised and enlarged English edition, with 138 fine engravings. Philadelphia: Henry C. Lea's Son & Co., 1881. 347 pages. Price \$2.25. Columbus: Geo. W. Gleason.

- That this is from the fifth English edition, fully sets forth the estimate placed upon it by the profession and medical students. Each succeeding edition has been more valuable than its predecessor. The cuts are from the author's own microscopical preparations, and hence possess a special value and interest. We know of no work in our language that can be studied to greater advantage by the student nor one more reliable for reference by the practitioner.

Lectures on Diseases of the Rectum and the Surgery of the Lower Bowel; Delivered at Bellevue Hospital Medical College, by W. H. VanBuren, M. D., LL. D., (Yalen). Professor of the Principles and Practice of Surgery in the Bellevue Hospital Medical College; Consulting Surgeon of the New York Hospital; of the Bellevue Hospital; of the Presbyterian Hospital; formerly President of the New York Pathological Society, etc., etc. D. Appleton & Co., New York. 1881. Columbus: Geo. W. Gleason & Co. Pp. 412; price, \$3.

This is certainly a very practical work, though not as pretentious as some others. The first chapter treats of Pruritus ani, External Hemorrhoids, Herpes and Eczema, and Thread-worms. The latter he thinks are much more common in adults than is generally supposed, and are not infrequently the unsuspected cause of obscure reflex troubles. The second chapter, on Internal Hemorrhoids, is quite full. The third deals with Prolapsus very exhaustively. The fourth on Polyps and Benign Tumors, gives points in Diagnosis. The fifth, on Abscess, is very full, especially on pathology and treatment. The sixth, on Fistula, is certainly one of the best in the book. The eighth, on Ulcer of the Rectum, is interesting and valuable. The next

two chapters treat of Benign Stricture of the Rectum, completely and concisely. Chapter eleventh, on Rectal Cancer, is a fair resume of our knowledge on that subject. The twelfth chapter groups together a number of minor subjects—Congenital Malformation, Fecal Impaction, Foreign Bodies in the Lower Bowel, Atony of the Rectum, and contains some valuable remarks on the hygiene of the lower bowel.

The book is written in clear and forcible, though pleasant style.

How We Feed the Baby to Make Her Healthy; with health hints; by C. E. Page, M. D. New York: Fowler and Wells. 1881. Paper, 50 cts.; cloth, 75 cts.

The book is a description of the author's method of bringing up his own baby, a baby that succeeded in living "month after month, without colic, 'red gum,' canker, sore-mouth, 'colds'—not even the snuffles—no throwing up of milk, no drooling, but everything sweet and lovely." The main idea of the book is to feed babies but three meals a day, and not very large meals either. The author succeeds in making a strong case in favor of his view.

In addition to this central idea, the writer also gives some valuable advice as to weaning, bathing, clothing, ventilation, etc. It is an excellent little work, the perusal of which would benefit every mother.

Constipation Plainly Treated, and relieved without the use of drugs; by Jos. F. Edwards, M. D., author of "How a Person Threatened or Afflicted with Bright's Disease Ought to Live." Philadelphia: Presley Blakiston. 1881. Columbus: R. Jones & Son. Pp. 72; price 75 cts.

After describing the functions of the stomach and bowels, and speaking of the necessity for daily evacuations, the author attacks the problem of how to accomplish the latter without the use of drugs. For babies, he recommends inserting a stiff-paper lamp-lighter for about two inches into the rectum, previously smearing the lighter with Castile soap. This will produce irritation and lead to a passage. If this fails, injections are recommended. We would prefer to trust the syringe in the hands of a nurse, than the lighter. Older children may eat oatmeal, branbread, grifs, etc.

For adults he recommends the establishment of the *habit* as of prime importance: after this, exercise, especially walking; massage; cold bath; diet. An apple, or other fruit, eaten before breakfast, and followed by a glass of water, will often cure obstinate constipation.

The book is plainly written, as the author intended, and contains much good advice, pleasantly given.

Drainage for Health, or Easy Lessons in Sanitary Science; by Joseph Wilson, M. D., Medical Director, U. S. Navy. Philadelphia: Presley Blakiston. 1881. 8vo. Pp. 68. Cloth.

There is little new in this book for a person who has made any special study of sanitary matters; but beginners, or laymen, will find much in it, pleasantly expressed.

Students' Aid Series. Aids to Diagnosis, Part I. Semeiology; by J. Milner Fothergill, Member of the Royal College of Physicians of London, etc.
Aids to Diagnosis, Part II. Physical; by J. C. Thorowgood, M. D., M. R. C. P., New York. G. P. Putnam's Sons, 27 and 29 West 23d street. 1881. Paper, 25 cts.; cloth, 50 cts.;

The first of the small books is one of the *meatiest* little things we have met with in many a day. It treats of just those *little* points in diagnosis—connected with the appearance, manner, expression, gait, etc., of the patient—that aid one who is familiar with them so much in every day practice.

The second is not nearly so valuable. It is simply impossible to compress physical diagnosis into sixty duodecimo pages, without squeezing all the juice out.

Hand-Book of Urinary Analysis; Chemical and Microscopical; for the use of Physicians, Medical Students and Clinical Assistants. By Frank M. Deems, M. D., Laboratory Instructor in the Medical Department of the University of New York: Member of the New York County Medical Society; Member of the New York Microscopical Society, etc. 12 mo., limp cloth, 25 cts. New York: Industrial Publication Co.

This Manual presents a plan for the systematic examination of liquid urine, urinary deposits, and calculi. The author has had for several years a very extended experience as a teacher of this branch of diagnosis, and he has compiled a manual which will serve to lessen the difficulties in the way of the beginner, and save valuable time to the busy practitioner.

A Practical Treatise on Surgical Diagnosis; designed as a manual for Practitioners and Students; by Ambrose L. Ranney, M. D., Adjunct Professor of Anatomy, and late Lecturer on the Surgical Diseases of the Genito-Urinary Organs and on Minor Surgery, in the Medical Department of the University of New York, etc., etc. Second edition, enlarged and revised. New York: Wm. Wood & Co. 1880.

Dr. Ranney's work seems to have succeeded in "supplying a want," since it is so short a time since the appearance of the first edition. He has given the profession a good book, which it has fully appreciated.

Drugs that Enslave; the Opium, Morphine, Chloral and Hashisch Habits; by H. H. Kane, M. D., New York City. Philadelphia: Presley Blakiston. 1881. Columbus: R. Jones & Son. Cloth, \$1.50.

The author has, within a few years, become quite well known to the profession of this country as a specialist in the treatment of these "habits." This book gives us the results of his study and experience, and is a valuable guide. The frontispiece is, very appropriately, a picture of Virgil's Laocöon.

What Every Mother Ought to Know; by Edward Ellis, M. D., late Senior Physician to the Victoria Hospital for Sick Children, author of "A Practical Manual of the Diseases of Children," etc. Philadelphia: Presley Blakiston. 1881. Price, 75 cts.

Dr. Ellis is well known as the author of one of our best works on diseases of children. In this little book he has endeavored to write for the benefit of

intelligent mothers, and he has certainly succeeded most admirably. If every mother in the land would read it, the children would be all the healthier and happier.

"*The Arkansas Doctor*," Vol. I, No. 1, is just received. In its matter, presswork, paper, typography, style, this journal is undoubtedly the poorest that we have ever seen. It is published at Harrisburg, Ark.; pages, 24; price, \$1.

Letheomania, by Henry Gibbons, Sr., M. D., San Francisco. Under this title Dr. Gibbons considers the form of opium habit arising from the hypodermic use of morphia. The title is an appropriate one, and the subject matter of the essay is excellent reading.

EDITORIAL DEPARTMENT.

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Communications, reports, etc., are solicited from all quarters.

Authors desiring reprints, will receive fifty, free of charge, *provided* the request for the same accompanies the article.

Subscribers changing their location, are requested to notify the Publishers *promptly*, that there may be no delay in receipt of the journal, stating both the *new* and the *former* post-office address.

We have no authorized collectors, except such as carry properly made out bills, *countersigned* by the Publishers.

COTT & HANN, Publishers, Columbus, Ohio.

SALUTATORY.

THE OHIO MEDICAL JOURNAL—the *accouchement* of which is described with sufficient fullness on pages 3 and 4—is primarily and nominally the organ of the OHIO STATE MEDICAL SOCIETY. But, in its objects, this Society represents the Profession in its entirety; its journal, therefore, will be equally broad, representative, and cosmopolitan. Its objects are, the advancement of medical knowledge; the elevation of professional character; the protection of professional interests; the enlarging of the bounds of medical science; and the promotion of all measures designed to relieve the suffering, improve the health, or protect the lives of the community.

Editorially it will be conducted by a corps of men, nearly every one of whom has had more or less experience in this line, and who will represent to the fullest extent the profession in their respective portions of the State.

It carries with it the large subscription list of the *Ohio Medical Recorder*, (which now ceases to exist as such,) so that the friends of the latter will lose nothing by the change, but rather gain, as the new journal enters a broader field and assumes a more varied function.

It will contain the Proceedings of the Society, and such papers, read before that body, as its Publication Committee may recommend. Its columns will be open to the officers of the Society and the Chairmen of its Committees, for any communications they may wish to make, as well as to the members in general for the discussion of all questions of a scientific or legislative character. In other words, the JOURNAL is designed to be to the Society what the *British Medical Journal* is to the British Medical Association. Of course it takes the place of the annual volume of *Transactions*.

In addition to the publications of the Society, it will contain original contributions from other sources, carefully made selections, news items, book notices and reviews, etc., etc., as found in other medical journals. To make room for this increase of matter, the publishers have made the printed page unusually large—one-sixth larger than that of the *Recorder*, so that the subscribers to the latter journal will get as much matter as formerly, in addition to the more or less valuable Proceedings of the State Society.

More than usual care will be taken to give full synopses of the scientific work of other State Societies, while reviews in general shall be fair and fearless, being written principally for the benefit of the reader, rather than of the publisher.

Ohio thus becomes the first State to take the new departure in issuing its Proceedings, and, as a result; its papers get a circulation of three thousand copies instead of, as heretofore, less than five hundred.

BILLROTH'S RESECTION OF THE PYLORUS.

Billroth's famous case of resection of the pylorus for cancer, terminated fatally, by a return of the disease, four months after the operation. The operation has now been performed in Vienna five times: one patient only, the one last operated on, was alive at last accounts.

Cancer is now regarded, quite generally, as a local expression of a constitutional diathesis or basis. That is, the system is in such a state that a benignant growth, a scar, a wart, an ulcer, may easily and readily take on malignant action when subject to some irritation. This condition may be inherited or acquired. If the local manifestation be removed sufficiently early, by operation, before the occurrence of metastatic new formations, and if at the same time the diathesis can be changed, by medicinal treatment or otherwise, recovery will take place. To affect this change, a vegetable diet is recommended, with arsenic and iodide of potassium.

With this view of the origin of cancer, Billroth's operations can hardly be recommended. The early detection of cancer of the stomach is impossible. If removal be accomplished without the death of the patient on the table, he will probably die of peritonitis or septicemia. But if he fortunately survive these immediate dangers, it is only to miserably perish by a return of the disease, almost as soon as convalescence is established from the operation itself.

There is no reason to believe that life was in the least prolonged, or ever rendered more comfortable, in Billroth's most successful case; while in the others it was undoubtedly shortened. The operation was bold in conception, and brilliant in execution; but, as all conservative surgeons predicted, it has proved a complete failure, and further experimentation in this direction will require explanation and apology.

OUR COLLEAGUE from West Virginia, Dr. JAS. E. REEVES, has lately received a double compliment: has been elected President of his State Medical Society, and also Secretary of the State Board of Health. We congratulate the Doctor upon the honors thus thrust upon him, and assure him that we feel a personal gratification.

MEDICAL SOCIETY NOTES.

It was the largest meeting for several years.

THE consideration of the proposed Constitution and By-laws occupied so much time that nearly all the papers were crowded over to the last day.

MOST of the "special committees" failed to report, as usual.

BUT for the volunteer papers, the meeting would have been as the one a year ago.

ONE reason for the lack of discussion of papers read is, probably, that those announced have heretofore so regularly failed that no one cares to prepare himself to discuss a paper that he is morally certain will never be read.

DR. J. E. REEVES, of Wheeling, President elect of the W. Va. State Medical Society, attended the meeting and occupied a seat on the platform. In responding to the invitation of Pres. Hyatt, he made a stirring appeal to the Society in regard to a Board of Health in the State.

THE Society first convened in the City Hall. Its acoustics proved so bad, notwithstanding recent expensive improvements in its interior, that the second day's sessions were held in Naughton Hall. This, however, again proved a failure, owing to the noise from the pavements below. Finally, on the third day, Lyndon Hall was secured, on the corner of Fourth and Long streets. This proved a perfect gem for society purposes, and lead more than anything else to the selection of Columbus as the place of meeting for next year.

THE "ADULTERATION ACT," proposed by the National Board of Trade, has become a law in New York and New Jersey. It applies to food and drugs, and we heartily congratulate the consumers of either on this protection of their interests. Mr. Henry C. Meyer, the proprietor of *The Sanitary Engineer*, is entitled to full credit for conceiving and, as Chairman of the Committee, carrying out the idea of such an act. It was *The Sanitary Engineer*, also, that inaugurated the prize competition for improved tenement houses and school houses. This journal has become the leading authority in this country upon sanitary questions. We shall at some future time reprint this act for the benefit of our western readers.

AMERICAN MEDICAL ASSOCIATION.—The *Virginia Medical Monthly* and the *Southern Clinic* both published daily editions containing the proceedings—the former being quite full. The *Chicago Medical Journal and Examiner*, however, furnishes a supplement to its June number, containing so full a report of the meeting as to enable it to largely take the place of the regular volume of *Transactions*, which will appear, Providence permitting, sometime next year. The following officers were elected:

President—Dr. T. J. Woodward, U. S. A.

Vice Presidents—Dr. P. O. Harper, Arkansas; Dr. L. Conner, Michigan; Dr. Eugene Grissom, North Carolina; Dr. Hunter McGuire, Virginia.

Secretary—Dr. Wm. B. Atkinson, Pennsylvania.

Treasurer—Dr. R. J. Dunglison, Pennsylvania.

Librarian—Dr. Wm. Lee, Washington.

St. Paul, Minn., was selected as the place for the next annual meeting.

REORGANIZATION OF MEDICAL SOCIETIES.—The editor of the *Philadelphia Reporter* desires more centralization of the power of the profession in this country. His scheme seems to be a good one, and is as follows: Let every member of a county society be, *ipso facto*, a member of his State society, and every member of a State Society be a member of the American Medical Association. By this organization, he thinks, an *esprit de corps* would be fostered, a living interest be created, and a centralized power be established which could be wielded effectually for the good of the profession and the public.

PUERPERAL CONVULSIONS.—Dr. D. W. Coble, of Westerville, reports to us a case of convulsions coming on at the beginning of the eighth month, with no sign of commencing labor. The usual remedies were resorted to, including hypodermic injections of morphine, but without avail. There was entire suppression of urine. Patient died in about twelve hours, having had about thirty convulsions.

INTERNATIONAL INSTITUTE for Preserving and Perfecting Weights and Measures. We have received a circular from the Ohio Branch of this Institute, in which some of the ways that are dark of the so-called "American Metrological Society" are exposed. Mr. Chas. Latimer, Chief Engineer of the N. Y. P. & O. R. R., is President of this Branch, which has its headquarters at Cleveland, and G. W. Crossett is Secretary. The metric system, for opposing the introduction of which this Institute is organized, has been progressing so rapidly *backwards* in this country for the last two or three years, at least among physicians, that we do not think the labors of the Institute will be particularly arduous.

MR. LEYPOLDT, the brave publisher of the *Index Medicus*, has addressed a note to the physicians of this city and vicinity, asking their support of that great and worthy bibliographical journal. To the medical professor and the studious physician this *Index* is of inestimable value. Dr. Frank H. Hamilton expresses himself as follows concerning it:

"I do not find words to tell you how much I value your *Index Medicus*. If I could have had it when I commenced the study and practice of medicine, it would have saved me several years of labor, and have added so much to my life. To any medical student it is economy of time, and of money, nor can I see how it can be improved."

The address of that publication is Nos. 13 and 15 Park Row (P. O. Box 4295), New York City.

Messrs. Henry C. Lea's Son & Co., who have recently given the profession of this country an American edition of Reynold's System of Medicine, in three volumes, announce that they will soon issue a companion work on Surgery, viz.: Holmes' System of Surgery, Americanized. The work has been in course of preparation for over a year, some thirty distinguished surgeons in different parts of the country having, during the time, been at work on it. The editor is John H. Packard, of Philadelphia.

Among the American revisers, we notice the names of John B. Roberts, J. Nevins Hyde, Morris Longstreth, P. S. Conner, Wm. Hunt, Thos. G. Morton, Samuel Ashhurst, Stimson, Packard, Bartholow, Hodgen, Burnett, Cohen, Keyes, Skene, Markoe, J. C. Reeve, Hunter McGuire, Leidy, and many other prominent men. The five volumes will be compressed into three, as with *Reynolds*, and will be sold by subscription. Prices: Cloth, \$18; leather, \$21; half Russia, \$22.50.

THE *New York Medical Journal* has added to its name, and *Obstetrical Review*. It is a handsome and representative journal.

PROF. STILLE has resigned his chair in the University of Pennsylvania.

Wm. Wood & Co., of New York, have now in preparation a grand *International Encyclopedia of Surgery*. It is to be edited by Dr. John Ashhurst, Professor of Clinical Surgery in the University of Pennsylvania, and will be published in six volumes, royal octavo, illustrated with chromo-lithographs and wood engravings.

It is to be, while International, more particularly American. In the prospectus, there are given the names of over thirty American surgeons, who are contributors; nineteen from Great Britain; four from France; two from Germany, and two from Spain. It is to be issued also in the German, French and Spanish languages. Each special subject is to be written up by some specialist in that department; thus insuring the most authoritative dicta.

It is certainly a bold project, but we know of no one better adapted to carry it to a successful issue than the publishers who have undertaken it. The first volume will be issued during the fall, and the others at intervals of about three months. The work will be sold only by subscription, at \$6, \$7, and \$8 per volume.

TONSILLOTOMY VS. VIRILITY.—A few weeks ago, Prof. Penrose, of Philadelphia, allowed himself, in a clinical lecture, to make the foolish remark that the removal of the tonsils in male children was liable to be followed by sterility. His remark was, of course, widely copied in the journals.

Dr. Brandeis, of New York, who has taken some pains to refute the statement, reports eight cases in the *Louisville Medical News*, in which the tonsils had been removed in childhood. Seven of the subjects were married, and had from two to seven children each, while the eighth had no reason to doubt his virile powers.

THE HIGH PRIESTS OF SURGERY.—In other departments surgical ingenuity is strained in its sublimest heights by the invention of steam engines for the destruction of *hypothetical* entities, and the modern surgeon, like the priest of old, performs his thaumaturgy amid a cloud of incense and an abominable smell.—*Press and Circular*.

NO YELLOW FEVER THIS YEAR.—The officers of the National Board of Health and the Marine Hospital Service have been examining the reports received by them from all points where yellow fever is likely to originate or occur. The reports all inspire the board with confidence that there will not be any yellow fever in the United States this year.

DR. LOVETT, of Erie, Pa., was recently prosecuted for malpractice, the plaintiff claiming that he lost an arm by too tight bandaging after a fracture. The jury brought in a verdict of \$2,450.

A MEDICO-LEGAL CASE: from Canada.—Dr. Levi, having a case of obstinate vomiting of pregnancy, called in consultation Dr. Reed, his senior, to consider the advisability of an abortion. Reed advised against it, and it was not done. The woman finally got better, and went to full term. Thereupon Reed proceeded to industriously circulate the report that Levi had asked him to assist in committing murder, etc.; and to call Levi an abortionist and murderer. This, with other similar gross slanders, led Levi to prosecute Reed for libel. Suit was commenced in October, 1877. It dragged its slow length along—with adjournments, appeals, motions, etc.—until February, 1881, when final judgment was rendered by the Supreme Court; Levi getting \$1,000 damages, and all costs.

INFORMATION WANTED.

I desire information on the points involved in the following questions. I wish physicians to furnish me with answers to each of them—giving in detail all particulars of cases, coming under either head—as to previous family history, etc. I know this involves trouble, but the subject is important, and is of the highest interest to humanity. In the paper, when published, I will give credit to all who may favor me with their aid.

All expense arising from the transmission of answers will be paid.

I am truly,

D. N. KINSMAN, M. D.

Columbus, Ohio, No. 60 E. Broad St.

1. Have you knowledge of the destruction of families by Consumption, in such a manner as to give evidence of the communication of the disease from the sick to the healthy persons of the family?

2. Do you know of any cases of the communication of Consumption from a phthisical husband to a healthy wife—or from a sick wife to a previously healthy husband?

3. Do you know of any instances in which Consumption has been introduced into a previously healthy family, by having a person sick with Consumption taken into their home and nursed there till death?

4. Do you, from the evidence of your professional experience, believe Consumption is ever communicated from the sick to the healthy, unless they are the victims of a diathetic tendency to the disease?

5. Do you think Consumption more frequently arises in the children of parents who have died from the disease, than in the children of those who have died from other chronic diseases of early and middle life?

6. Can you give any estimate of the proportion of *hereditary* and *acquired* cases of Consumption in your practice?

CINCHONA CULTIVATION, in Jamaica, is likely to prove a pronounced success.

LONDON PHYSICIANS are much given to equestrian exercise. They personally accept the prescription ascribed to Lord Palmerston, "The outside of a horse is the best thing for the inside of a man."

DOCTOR MAKING:—Professor.—"*Quid est creare?*"

Candidate.—"*E nihilo facere.*"

Prof.—"*Bene; te doctorem creavimus.*"—*French Journal.*

CONNECTICUT has adopted a law to prevent irregular medical practice, which enacts that any transient person not an inhabitant of the State, who shall treat any disease or injury shall be fined \$25 a day for each day that he shall exercise his profession without a license. The license may be obtained from the selectmen of towns, or the chief officer of police of cities, on payment to the town or city of \$20 per day for each day for which the license is granted.

MESSRS. PARKE, DAVIS & Co. made a fine display of their pharmaceuticals at the meeting of the Society. The physicians who examined them highly recommended them, especially those in the front room.

The Trommer Extract of Malt Co. also made a good display, and P. W. Garfield, of Cleveland, had several thousand dollars worth of books, for examination and purchase.

All the displays were unusually fine.

NEW ADVERTISEMENT:—N. Y. P. & O. R. R., popular route to Chautauqua Lake.

MARRIED.—Wednesday, June 8th, 1881, Dr. H. S. Byers to Florence May Vail, Youngstown, Ohio.

DIED.—In Galveston, Texas, June 9th, after five day's illness, DR. GREENVILLE DOWELL, aged 55. He was Professor of Surgery in the Texas Medical College, had devised a method for the radical cure of hernia, and had written a work on Yellow Fever.

DIED.—June 9th, of pneumonia, HUGH LENOX HODGE, M. D., of Philadelphia, aged 45. He was the son of the famous obstetrician.

THE famous Alexis St. Martin is dead.

CROWDED OUT.—Society Proceedings and book notices occupy so much space this month as to crowd out the department of Selections.

THE OHIO MEDICAL JOURNAL.

Vol. I.

AUGUST, 1881.

No. 2.

COMMUNICATIONS.

A CONTRIBUTION TO THE STUDY OF OPTICAL HEAD-ACHE.

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Read before the Ohio State Medical Society, June 15, 1881.

Among the affections, which seem to be on the border land between the province of the oculist and general practitioner, is what may be designated as Optical Headache. As these cases may fall into the hands of either, they are of interest to both.

It is owing, perhaps, to the comparative rarity of such cases, that one looks in vain for definite information on the subject, either in works on general practice or ophthalmology. Those who have written on this special subject of headache, and have mentioned certain nervous phenomena connected with the eye, still have thrown no particular light on that form. To Galizowski, of Paris, belongs the honor of describing this type of cases. He first analyzed its symptoms, grouping and portraying them so distinctly as to remove difficulties in the way of diagnosis. This he was enabled to do by the careful study of twenty-one cases observed within two years. As besides the pain in the head the most alarming feature is the loss of vision, for a time, usually of one half of any object looked at, he gave to this affection the name "Headache of the Eye or Periodical Hemipia."

Being specially interested in his presentation of the subject, and at the same time seeing one of his patients, it was a preparative for several cases of the same kind that came under my own care during the last winter. A history of one of these patients affords an accurate description of a typical case. In March last, I was summoned to see Mrs. L.— as quickly as possible. The messenger stated she was suffering with an intense pain in the head, and had lost her sight three or four times in the last twenty-four hours. The

patient was found in one of her severest attacks, in a state of great prostration, with feeble pulse, cold extremities, intense pain in the head, the sight feeble, though the half blindness had passed away. After obtaining for her a state of comparative ease, chiefly by hot applications, an investigation of the case proved it to be one of the apparently alarming optical headaches. With careful questioning the following statement was obtained: The attacks come suddenly, in an instant, at any time or place. The patient first sees, on the outer side of one eye, about a foot off, a trembling motion, like that of hot air above a furnace. This changes to colors, rainbow hues, then fades to a cloud. She sees also bright zig-zag lines, and at the same time can see but the lateral half of any object looked at; as half of a person's face, for instance. The invisible half of any object is directly opposite the side on which the colors are seen; that is, if the colors are on the outer side of the right eye, it is the left side of the face opposite that is not seen. The hemiopia lasts about half an hour. A headache follows, beginning in the temple and always on the side of the head opposite the eye affected. The pain then passes to the top of the head, spreads all over, goes down the back of the neck to between the shoulders, and lasts in all usually half a day.

The eye symptoms, in her case, are the forerunner of the headache. Either eye may be affected, but only one at a time, and oftener the right than the left. The sight is feeble for the rest of the day, and the eyes feel strained. The attacks seem to be induced by the use of the eyes, and using the eyes seems to renew them. The attacks sometimes occur six or eight times in succession, two days apart; again the interval may be one or two months. They often come on during sleep. She dreams of the colors and half-blindness, and is awakened by the headache. The attacks began when she was only twelve years of age, and are, on the whole, less frequent than formerly, she now being thirty-eight. Her father and mother were both affected the same way, also one brother and two sisters. Strangely, she had married into a family some of whose members were similarly troubled, her step-daughter being one of them.

A second case of interest differs in some of its details from the one just described. A young lady, aged seventeen, in whom the attacks began at thirteen, has always a slight headache *first*, and over the eye affected. It is always the left eye, never the right. A yellow spot is first seen on the outer side of the eye, then every bright color in an oblong shape. These quiver constantly, and are seen with the eyes closed as distinctly as when open, and they continue visible the entire day, unless sleep comes sooner to her relief. She sees the lateral half only of objects, for about half an hour, and has never noticed the sight feeble afterwards. The attack is sudden, and the headache always on the same side as that on which the colors are seen.

The general characteristics of this affection may be summed up as follows:

The attack comes on suddenly. The blindness usually precedes the headache, but in some instances follows it, and when the headache comes first, the attack is not quite so sudden.

The loss of vision is generally the lateral half of an object, though sometimes it is the upper or lower half. Again there may be seen only a black spot in the center of an object.

Usually one eye only is affected at a time. Though each may be in turn, one is generally oftener than the other.

The hemiopia lasts from twenty minutes to half an hour, in rare cases longer, and the sight remains feeble often for the rest of the day. The eye balls are sometimes tender to the touch, a little inflamed, or have a strained feeling.

Though the field of vision is obliterated one half, the acuity of vision is normal, the patient being able to read.

About as many women as men are troubled with this affection.

Some interesting inquiries are connected with this subject. First, is there any type of eye that predominates more than another in these patients? Have the majority the normal eye, are they near sighted, or have they the reverse formation? In the conclusions drawn by Galizowski, after the careful study of twenty-one cases, he makes no mention of this point except in one instance, when he states the eye was of normal type. In the first of my own cases here described, the patient is hyperopic. The attacks are often started simply by the use of the eyes in reading or sewing. Doubtless if the strain upon them was removed by suitable glasses, the attacks would be less frequent, but her decided opposition to wearing glasses has prevented this test being made.

Her mother, who was subject to these headaches, was doubtless also hyperopic, as, the daughter states, she wore glasses before thirty, forty-eight being about the age at which the normal eye requires their use. One other patient was also hyperopic, making three out of a group of four cases.

Second, is this trouble hereditary, or are most of the cases isolated? Judging from this group, heredity seems to play a part. In one family, both parents, one son and three daughters were subject to it.

Third, does this disease remain through life, or can it be ameliorated or removed altogether? The mother of the first patient described was subject to it until her death, at seventy years of age. A young lady, a victim of this trouble, was at the same time a sufferer from dyspepsia. When, several years ago, she was relieved of the latter, this peculiar headache also disappeared and has not since returned.

As to treatment of these cases, the symptoms connected with the eye are not grave and require no treatment. They do not show any disease of the optic

nerve or choroid. An examination of the eye with the ophthalmoscope, either at the time of the attack or during the interval, reveals nothing abnormal. If, as in the first case reported, the eye is not of normal type, then all straining of the eye must be relieved by appropriate glasses. This removes, not the root of the difficulty, but something which aggravates it or causes it to recur more frequently.

Some of these patients are subject to dyspepsia, and sometimes when that is overcome the periodical hemiopia disappears. Even those not ordinarily troubled with indigestion, at that time are apt to have some gastric derangement. Emesis often comes of itself and always affords relief.

Regulation of the diet, abstinence from stimulants of all kinds, coffee, spices, and alcohol in any form, fresh air and out door exercise, aid greatly in improving the condition. Iron and quinine seem also to be of service. In general, a tonic, fortifying treatment seems to be the one attended with most success.

As to diagnosis of these cases, there are times when it would be fraught with serious loss to the patient not to have this form distinctly recognized. This cannot be better illustrated than by a case related by Galizowski: A gentleman came to consult him, who had lost the sight of one eye from glaucoma, and had frequent attacks of hemiopia in the other. The question was whether this was owing to sympathetic irritation, requiring enucleation of the lost eye, or whether it was due to optical headache. After a thorough investigation it proved to be latter, and the other eye was not removed, thus saving the patient from an operation and the great inconvenience of wearing an artificial eye.

This, with other cases, shows there is no affection in which it is often of more importance to make an absolutely correct diagnosis than in optical headache.

(A letter received from Galizowski, since finishing this paper, states that he has now had one hundred and twenty-six cases of this nature, sixty-five of which were women and sixty-one men. He also states the important fact, that in some of these later cases the blindness was followed by epileptiform attacks.)

PROGRESS OF GYNECOLOGY.

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Read before the Ohio State Medical Society, June 16, 1881.

In reviewing the literature for the last year I do not find the reports of cases purely medical, as full or frequent as I do those belonging to the surgery of

this especial branch of our profession. Recognizing the fact that Medical Gynecology, if I may so term it, is of far greater importance than surgical, to the largest number of the profession, and believing, also, that earnest and able men are devoting their energies to its advancement, I deem it unfortunate that there exists this seeming omission of research. While it is not a valid excuse, we may possibly find a reason for it in the fact that the administering of medicines and noting their effects, do not elicit the same *eclat* which surgical achievements do.

Prof. Fordyce Barker, in his address before the American Gynecological Society, in 1877, stated that "the sole justification of any operation which involves suffering and danger to the subject, must be the strong probability, based on scientific knowledge, that compensating good will be the result."

E. P. Foster, in his review of West's *Lectures on Diseases of Women*, found in the April number of the *American Journal of Obstetrics*, 1880, well says that "cutting, scraping and stretching are not the essence of Gynecological practice, and boldness is not the prime requisite of success." If a Gynecologist cannot be both, it is of the utmost importance that he be a physician rather than a surgeon, ever bearing in mind that the medical practice, in diseases peculiar to women, has been overshadowed by the surgery of these cases. There is, however, an occasional notice of medicines, either simple or compound, which, if not new to the profession as remedies, are so in their application.

Fluid extract of blackhaw, introduced a few years since by Prof. Jenks as antiabortive, has stood the test of time, and is also used quite successfully as an anodyne, or rather antispasmodic, in certain functional derangements of the uterine system, and is useful in some cases of profuse menstruation.

Chloral, in combination with bromide of potassium and morphia, has been introduced for, and found to control, the pains preceding menstruation, especially in the, so-called, ovarian dysmenorrhea, or more strictly speaking, chronic ovaritis.

In the *American Journal of Medical Sciences*, for January, 1881, is an excellent article by Rudolph Tauszky, M. D., Physician and Surgeon to Mount Sinai Hospital, &c., on the treatment of metrorrhagia and menorrhagia. No doubt every physician present has been sorely troubled with these troublesome, persistent, and, at times, dangerous cases. Dr. Tauszky here gives an article in which their successful management is set forth fully, clearly and forcibly, and the value of the article is in the fact that it is based upon an experience of several years with the treatment detailed, and not upon theory.

After referring to the importance of directing the curative measures to the existing pathological condition, he urges the necessity of continuous treat-

ment, rather than limiting it to inter-menstrual or menstrual periods. He advocates the use of the wire curette, of Thomas, for fungosities, and where this fails, uses the hot iron to the lining membrane of the uterus. He uses and recommends as a hemostatic the application of Monsell's solution, diluted with equal parts of glycerine, to the endometrium, and states that he has never seen any evil results follow this application; but cautions that the uterine cavity be fully dilated with tupelo or laminaria tents (never using sponge) before making the application. In patients of full habit the use of salicylate of soda, internally, is spoken of very highly, to increase arterial tension and reduce the size of the enlarged flabby uterus. Cold water is not used in those cases wherein it induces chilliness, or in which the skin becomes blue or pale. The copious hot water, vaginal injections, of temperature of 110° to 120° F., as recommended by Trousseau nearly thirty years ago, in atony of the uterus, and which have been recently revived by Emmet, have in the hands of Dr. Tauszky been attended with remarkable success. There would be more advocates of its use if it were used oftener and in larger quantities each time. A good rule is to continue it until the parts are thoroughly blanched, and repeat it often enough to keep them so. Ergot, digitalis, rest, friction, &c., are used, but in a thoroughly systematic manner, strict attention being paid to the details. Uterine colic, when depending upon clots in uterine cavity, he relieves by holding the internal os and cervical canal open for a short time with a steel dilator. Taking it all in all the article is one of the most valuable contributions of the past year and well repays a careful perusal.

A propos of hot water injection, Prof. Courty (*Am. Jour. of Obstetrics*, Jan., 1881,) recommends its use as a preventive of hemorrhage in operations upon the genital organs of the female, and I can bear witness to the good effects.

Those urethral caruncles, once believed to be persistent and seemingly recurrent, are now easily cured by treating the tubular glands discovered recently by Skene. (See *Am. Jour. of Obstet.* for April, 1880.) May we not also here find the seat of the disease in certain intractable ulcerations of the urethra, referred to in the fourth edition of West's lectures upon the diseases of women?

In the *Am. Jour. of Obstetrics*, for July, 1880, Dr. Gehrung, of St. Louis, contributes an instructive article on the mechanical treatment of cystocele and procidentia uteri. After citing the proposition upon which all authorities agree, to wit.: that procidentia is co-existent with prolapsus of the bladder, he makes the statement that "if the bladder can be returned, and held in its normal position, the procidentia as such must be cured." Then, giving a description and illustration of a pessary devised by him, with which he has successfully treated several cases, he follows with a full report of them.

In the same journal Dr. Rob't Newman, of New York, details a method of curing urethrocele with a surgical operation, citing several cases, among which is one of eleven years standing, which several operations had failed to relieve. Dr. Newman's conclusions are thus summed up:

"1st. Simple urethrocele exists as a disease *per se*."

"2nd. Complicated urethrocele is generally caused by a loss of support from below, the parts rolling out and dragging down the tissues from above, but it may be caused by influences forcing the parts downwards."

"3rd. Operations are not always necessary to cure a urethrocele; other means may do it, particularly in simple urethrocele, and often in complicated urethrocele without a ruptured perineum." If the observations of these gentlemen are sustained by time and the profession, the suffering patients, at least, if none others, will have cause to be thankful.

Another indication of progress is manifested in the infrequent use, comparatively, of nitrate of silver to the cervix for ulceration. But a few years ago, it was a very frequent application, a sort of "*pons asinorum*." Prof. Reamy's statistics on this point are interesting and instructive; he reported that in the examination of eight thousand cases, he found only nineteen of true ulceration of the cervix—a significant fact.

Another indication is in the natural subsidence of a malady, very prevalent a few years since, which has been aptly styled "*speculo-mania*."

Several contributions to the pathology of dysmenorrhea have appeared, but, the same old difficulty remains. Emmet denies that it depends upon obstruction, but says, "that unless the flow is scanty, painful menstruation is accompanied by clots, and that their formation does not depend essentially upon obstruction." Again, "Every women, even in health, will experience at least some degree of discomfort at the menstrual period. That she should be absolutely free from pain, and suffer no inconvenience at this time, is an abnormal condition."

While I believe it may be inconvenient, yet I believe it to be a physiological process, and confess that I am unable to discern why it should be painful in health. Probably when the pathology of dysmenorrhea is written, if it ever is, the etymology of the word will be wholly ignored.

Other advancements which have come under my notice are duly recorded by our authorities in text books, notably by Thomas and Emmet in their revised editions.

Those of the profession who pay especial attention to this branch have, I think, every reason to be satisfied with the progress made during the past year or two, and it is cheering to note that those holding extreme views are gradually locating on middle ground.

INSANITY.

BY J. C. KENNEDY, M. D., BATAVIA, O.

Read before the Ohio State Medical Society, June 14, 1881.

There is, perhaps, no subject within the domain of Medical Science that has attracted earlier, or more, attention from advanced scientists and thinkers, than the subject of insanity. And although writers and thinkers of ability, in all ages, have devoted time and talent to the elucidation of the subject, I believe there are no two original thinkers who have entirely agreed on even a definition of the term. If this be essentially true, then I, in common with every man who has given any definite thought to the subject, have a perfect right to enunciate those thoughts or conclusions, however erratic or fanciful they may be. It is upon these grounds that I venture to occupy a position that should have been filled by one more competent for the task. But, the duty being allotted me, I shall proceed to give my own convictions, irrespective of what may have been promulgated by others.

On the subject of Insanity my facilities have furnished me with nothing, either definite or satisfactory, and, in my opinion, the reason for this is that we have sought a complex, instead of a simple problem. Entertaining this view, I shall endeavor to simplify the study by excluding from the field of investigation that mythical entity, called the mind, with all its fanciful attributes, as either belonging to the domain of Religion, or existing only as scientific idealities.

This being done, it reduces the problem to a simple question of the physiological functions of the brain and its appendages. By appendages I mean those nerve centres, or ganglia, whose functions are, in part, to originate and transmit impressions to the brain for adjudication and idealization. It will be admitted by all, that vision is the function of the structures of the eye; hearing of the ear, and so on with the structures of all the five senses. Upon the same physiological principle we may consider intellection, or idealization, to be the function of the structures of the brain and its appendages, and, in either case, that conditions of the physical structures, known as disease, produce functional disorder or derangement.

Hence, if the brain and all its apparent structures and channels are in a normal condition, their functional action will necessarily be normal; just as a healthy condition of the tissues of the eye produces normal vision; and the result will be correctly recognized as perfect sanity in the one case, and perfect vision in the other. But, if the apparent channels and their ganglia become diseased, an erratic, or false, impression will be conveyed to the adjudicating groups of cells of the cortical layer; and as these idealizing groups of cells have no control over those morbid sensations, or their origin, they are accepted as true and adjudicated accordingly; as the testimony of

a false witness as to outside facts, may be accepted and adjudicated as true by the court; and the result of the adjudication in either case be so apparently anomalous, or inconsistent with the original facts, as to produce erroneous conclusions in both cases, and yet the result would be in accordance with the accepted testimony.

Thus, the sane and insane reason with equal logical accuracy from their respective predicates. As an instance, the man with delirium tremens, where both illusions and delusions so frequently occur, has the erroneous impression conveyed to the adjudicating portion of the brain, that there are actually snakes in his boots, or that an assassin is pressing him; when he acts just as reasonably as you or I would, if the facts existed with us, that his abnormal impressions create for him, and hence, we have no evidence of any abnormal, or erratic action in the reasoning process, in this, or any other case. The reasoning function is never either diseased or disordered.

As to the question of what structures are diseased in these cases, I answer; they are always the afferent channels, or their ganglionic centers, except where the cortical or adjudicating textures are primarily involved, producing that variety of insanity denominated "maniacal;" and characterized by an incoherency of language denoting a want of consecutiveness in thought.

It will thus be seen that the structures involved are always those whose functional action precedes idealization; and not, as held by Winslow, Bucknell, Tuke, Maudsley, and other cerebral pathologists, "that the instrument through which the phenomena of the mind are expressed is the part diseased."

To the question, "What is insanity?" or, "In what does it consist?" I answer; It is one of the functional manifestations of a lesion of the brain or its appendages, and not a disease *per se* in any legitimate sense of the term.

EXSECTION OF RIB IN THE TREATMENT OF EMPYEMA.

BY N. P. DANDRIDGE, M. D.

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Read before the Ohio State Medical Society, June 14, 1881.

In 1865, in the *Archiv f. Heilkunde*, Roser, of Marburg, proposed and advocated the propriety of exsecting a portion of rib in those cases of empyema which had resisted the usual form of drainage through an opening in an intercostal space. The advantages claimed for this procedure were: 1st, There would be readier access to the pleural cavity and freer drainage; the opening in the intercostal space being often too small from the first, and always tending to contract as the adjacent ribs approximate one another by the falling in

of the chest wall. 2nd, The removal of a section of rib would allow a much greater collapse of the chest wall, and would thus assist greatly in reducing, or obliterating entirely, the cavity in the pleura by allowing its walls to come together, a condition which is essential to a cure.

To appreciate fully the importance of these advantages, it is necessary to recall the conditions which exist in all cases of empyema. The accumulation of fluid in the pleura tends to expand the movable chest wall so as to increase its circumference; it exerts at the same time a much greater influence upon the yielding lung tissue, so that it becomes more or less compressed. In this condition the pleural membrane becomes thickened by the continued inflammatory action, so that, even if the pressure is removed by the withdrawal or absorption of the effusion, the lung is so bound down that it cannot expand. Withdrawal of the fluid will permit the falling in of the chest wall, but only to a certain extent, for soon the adjacent ribs come in contact with one another and prevent further collapse. A cavity thus remains, bounded on the one side by the chest wall, which no longer yields, and on the other by the lung, which cannot expand owing to the resistance of the thickened pulmonary pleura. Obliteration of this cavity can only take place by a growth of granulations, which can be accomplished only by a long continued process of suppuration, which the patient is generally unable to stand. The extent of the cavity is such that it generally contains more or less of the retained pus, which is liable to undergo decomposition and thus give rise to conditions favorable for the production of septicemia. The usual history of these cases, therefore, is of a long continued purulent discharge, either through a spontaneous or artificial opening; and the patient gradually succumbs to exhaustion, septicemia, or amyloid degeneration of some of internal organs.

During the last three years, I have had occasion to practice exsection of a portion of rib in two different cases; and as they show the advantages of the procedure in certain conditions, I offer them as a contribution to the history of the operation. The first case was published *in extenso* in the *Cincinnati Lancet and Clinic*, April, 1879, and from that account I condense the following:

F. G., age 22, an ice slinger, entered the Cincinnati Hospital, July 29, 1878, for a gun shot wound of the chest. The wound was over the eighth rib, three inches outside of the nipple line. The ball had penetrated the cavity, but had not come out. On admission he was in a state of collapse, but with stimulants and nourishment he gradually rallied. Five days after admission, bronchial breathing was heard in the neighborhood of the wound, and he passed through an attack of pneumonia, which was confined to the lower part of the lung. Aug. 18, he was able to be up, and on the 21st he insisted upon leaving the hospital, although dullness was still distinct on the posterior aspect of the chest.

Four days later he was re-admitted, with evidence of effusion in the left pleura. This increased to such an extent as to interfere with respiration, and five days after admission the chest was aspirated and thirty-seven ounces of serous fluid drawn off, giving much relief. The effusion again accumulated and in seven days aspiration was again practiced and the same amount of fluid obtained as before, but this time it was purulent. This was followed by benefit which was of short duration. The temperature gradually rose to 102° and the pulse became rapid and feeble. Sept 19, a permanent opening was made into the pleural cavity in the seventh intercostal space, and a drainage tube inserted. Pus of a sanious character escaped. This operation was followed by decided improvement; the discharge was free, the temperature became normal, the pulse lower, and the appetite improved; he slept well, and was able to sit up. This improvement lasted for some days when the discharge changed and became foul smelling. An effort was made to correct this by inserting a tube to the bottom of the cavity and washing it out with a solution of carbolic acid. This could not be efficiently done, and the patient soon began to exhibit all the symptoms of septic fever. During this time the wound made by the entrance of the ball, which had been completely healed, opened anew. The condition soon became such that it was determined as a last resort to exsect a portion of rib in order to gain free access to the cavity, and thus accomplish satisfactory drainage. This was done Nov. 14 and five inches of the eighth rib removed. The patient was in a bad condition to bear such an operation, and before it was completed it became necessary to resort to the injection of whisky by the rectum. Two cavities were found; the anterior, beneath the bullet wound, was about two inches in diameter and was filled with decomposing clots of blood. This cavity did not communicate, so far as we could judge, with the much larger one which occupied the larger part of the posterior portion of the lung. These cavities were washed out daily with a weak solution of carbolic acid. Marked improvement followed at once, and in three months the patient left the hospital with the openings entirely closed, with the exception of a shallow sinus, from which only a few drops of pus escaped.

Mar. 12, 1879, Dr. J. C. Mackenzie visited the man with me at his home, and dictated the following record of his condition: "General appearance that of a healthy and well nourished man; with a considerable amount of adipose tissue over his abdomen. The left shoulder droops somewhat, and there is general retraction of the left side of the chest. The left pectoral muscle is less prominent than the right. Measurement on a line with the nipples: left side of the chest, $16\frac{1}{4}$ in.; right, $17\frac{1}{4}$. The expansion on right is $\frac{3}{4}$ in.; on left, *nil*. Two inches above the nipples, the left side is $16\frac{1}{2}$ in., and the right $17\frac{1}{2}$; the expansion is equal on both sides, and amounts to $\frac{1}{2}$ in. Anteriorly the dullness commences on a level with the nipples, and increases

downwards for two inches, when suddenly percussion reveals a tympanitic sound, which is evidently from the stomach, the retraction of the diaphragm having drawn up that organ higher than usual. In the axillary line the same condition holds true. Posteriorly dullness commences on a level with the lower organ of the scapula, and extends to the border of the ribs. The apex beat is felt to the outside of the nipple line during expiration. The respiratory murmur is heard beneath the clavicle, it is feeble; is not perceptible below the nipple. The same is found in the axillary line. In the supra scapular region the respiratory murmur is distinct; it ceases below on the level where dullness commences. The wound is entirely healed and the cicatrix is healthy. From the above it appears that there is a general retraction of the left side to the extent of one inch; respiratory movements are, however, perceptible above the nipple line. Below, there is no expansion, and no respiratory sounds can be heard."

Such was the condition of this man, Mar. 12, 1879. June 10, 1881, more than two years later, he was again carefully examined by Dr. Mackenzie, with the following result: "Very slight curvature of the spine in the dorsal region, with the convexity to the left. Area of the cardiac dullness somewhat increased to the left. Percussion note normal over the whole of chest. Vesicular murmur rather feebler on the left below the nipple anteriorly, and the inferior angle of the scapula posteriorly. No abnormal sounds heard anywhere. Circumference of the chest one inch below the nipple, 33 inches—17 in. on the right, and 16 in. on the left. Expansion on inspiration $1\frac{1}{2}$ inches—1 in. on right; $\frac{1}{2}$ in. on left." The inner end of the anterior portion of the rib removed could be distinctly felt. It occupied a plane anterior to the adjacent ribs and was very movable. The end of the posterior fragment was less readily felt, and seemed adherent to the adjacent ribs. In the interval, where the excited portion had been removed, the interspace was diminished and the ribs approximated.

From the above it will be seen that the lung has expanded in the last two years and become accessible to air, as shown by auscultation. The total expansion has increased from $\frac{3}{4}$ in. to $1\frac{1}{2}$ in. The left side, on which expansion was *nil* at the time of the first measurement, now shows $\frac{1}{2}$ in. It is quite probable that this will increase, for expansion of the lung has been seen before in similar cases.

The history of the second case I must give in a very brief and unsatisfactory manner. It occurred in the practice of Dr. Holdt, and his recent illness and death have prevented me from supplementing my own imperfect knowledge of the case from his notes. The history is simply an outline given from memory from the account of the case as detailed to me by Dr. H.

Some two years ago, a German girl, of about twenty-six, developed an acute pleurisy, which was marked by considerable effusion in the right

pleural cavity. This effusion not subsiding, several months after the onset of the attack aspiration was practiced and a quantity of purulent fluid was drawn off. The effusion again accumulated, and finally made a spontaneous opening at the point where the aspirator needle had entered. From this opening a thin purulent fluid constantly escaped. There was no evidence after the operation of any expansion of the lung. A short time after the spontaneous opening, I saw the case with Dr. Holdt, the discharge was then thin, and small in quantity, and the girl's general condition was good. A few weeks ago I again saw her. Her face presented a pale, anemic, and waxy appearance; both legs as far as the knees were swollen and edematous. This swelling disappeared when the recumbent position was assumed for some hours. There was no abdominal dropsy. The urine contained a large quantity of albumen. In the seventh intercostal space, external to the nipple line, was a small opening only large enough to admit an ordinary sized probe, and from which a thin, sanious and rather foul pus escaped, which was increased on coughing. This opening would close up from time to time, and then open again with free escape of the pent up fluid. It was thus apparent that the opening was too small to drain the cavity, and that a quantity of decomposing pus was constantly retained; it was also too limited to permit the injection of any disinfecting solution. From the above it was only too evident that the constant drain upon the system had already produced amyloid degeneration of the kidneys, and unless this could be speedily checked or diminished there was little hope that a fatal termination could be long delayed. Efficient drainage and ready disinfection of the suppurating cavity were the essentials in any plan looking to an improvement in the case. The exsection of a portion of rib was considered the most certain way of effecting this, and was accordingly performed. An inch and a half of the eighth rib was removed from the point where the opening had existed; that is, somewhat external to the nipple line. A considerable quantity of pus at once escaped. The operation was well borne. A silver canula was inserted, and directions were given for the frequent washing out of the cavity with a carbolic solution. No febrile re-action followed. It was found necessary to wash out the cavity several times a day, for the delay of even a few hours rendered the discharge bad smelling.

Little apparent benefit followed this operation. The amount of discharge did not diminish, the general condition remained the same, and there was very little evidence of repair in the wound. She died several weeks after the operation, with symptoms pointing to the disease of the kidneys. The case was so far advanced that it offered but little prospect of success from the first. The patient's condition was such, however, that unless the suppuration could be at once checked, there was no hope of averting a fatal termination. In

another case I should be satisfied with simply enlarging the opening, and not attempting a resection of the rib.

In estimating the benefit of the operation in these cases, it must be admitted that in the second it was *nil*. In the first it was most striking and was followed by immediate improvement at a time when the symptoms had been growing progressively worse. These symptoms showed marked evidence of septicemia, and extreme prostration from a profuse and foul discharge. The re-expansion of the lung which has occurred in this case, is an interesting fact which confirms what has been observed before. It is probably largely due to the traction made upon the periphery of the lung by the movements of the chest wall, the pleural adhesions binding the lung and wall together so that movement in the latter must of necessity make traction on the former.

The operation itself is simple and easily performed. The incision should be carried down to the rib and through the periosteum, which must be carefully separated from the bone. If this is done, all danger of wounding the intercostal artery is avoided. The rib itself may be cut through by a pair of cutting forceps, gouge, or chisel. Before cutting into the pleural cavity, a needle armed with a ligature may be passed beneath the intercostal artery and tied; this should be repeated an inch or so beyond, and the opening made between the two.

One or more ribs may be thus removed to the extent of several inches. If no opening has previously existed, the operation should be done antiseptically. If an opening already exists, it will be found impossible to thoroughly disinfect the cavity, which already contains decomposing discharges, and recourse must be had to frequent washing of the cavity with a solution of carbolic acid or other similar agent.

In conclusion, in order to estimate the scope and value of Roser's operation, the following may be formulated for the operative treatment of pleural effusion:

1st. In all cases of acute pleurisy, when the effusion is so great as to prove a source of danger by its quantity, aspiration is indicated regardless of the general course of the disease. The operation is here undertaken to avert an impending danger.

2nd. In all cases of acute pleurisy, when, after the subsidence of fever and the general symptoms, a considerable quantity of effusion remains, aspiration is indicated for its removal. In ordinary cases of acute pleurisy, the average time for operation will not be earlier than the 20th day of the disease. The exact time in individual cases will largely depend on the febrile condition. In all other conditions the mechanical removal of the effusion in acute pleurisy is not indicated.

3rd. In all cases of subacute, chronic, and latent pleurisy, mechanical re-

moval of the fluid is indicated as soon as the effusion is entirely recognised; and should re-accumulation occur, the operation should be repeated. In these cases aspiration should always be practiced first, and repeated as often as the effusion re-accumulates and remains serous. If, however, the fluid is purulent from the first, or becomes so after aspiration, repetition of this operation is not indicated, but rather the establishment at once of a permanent opening through an intercostal space in order to secure constant free drainage and to permit the frequent washing out of the cavity, and thus prevent stagnation and decomposition of the discharge.

4th. When the opening through the intercostal space proves insufficient to accomplish this result, or when the discharge continues a long time with deleterious effect, or the general health shows that obliteration of the cavity cannot occur, a section of rib, or more than one if necessary, should be practiced in order to offer freer access to the cavity of the pleura, and also to allow the chest wall to collapse to such an extent as to produce obliteration of the cavity by permitting its walls to come in contract.

5th. In cases where an absolute diagnosis cannot be had, between latent pleurisy and chronic pneumonia, aspiration is indicated to establish the diagnosis, and at the same time draw off the fluid if any be present.

ON CELLS, A RETROSPECT.

BY W. H. BIRCHMORE, COLUMBUS, O.

“The cause of the particular mode of existence of each part of a living body resides in the whole, while in dead masses each part contains the cause within itself.” With this quotation from Kant, Joh. Muller, in the year 1835, (*Physiologie*, Band 1, 1835) began an essay on the much vexed question “Organism and Life.” Were we to express the opinion which now seems current, it would be necessary to say, “The cause of the mode of the existence of the whole of a living body, lies in the mode of existence of the parts, and the existence of the whole equals the sum of the existences of these parts.”

At the time when Muller wrote, the life of every cell of the animal body was considered as dependent upon the life of the mass of cells constituting that body; while in the vegetable body, it was contended, each cell grew and multiplied for itself without reference to its neighbors. Joh. Muller, however, soon pointed out that there were analogies between the cells animal and vegetable, and specified those of the spinal cord as the most marked example; and when Valentin discovered the nucleus of the epidermic cell, he declared that the analogy was complete.

Hitherto no one had considered it possible that cells could grow without the intervention of vessels; but in 1839 Henle (*Symb. ad Anab. vill. Intest.*, Berlin, 1879) showed that in the epidermis the cells as they force their way from below become increased in diameter, and this he held was proof that the cells were not dependent upon the intervention of the vessels for their growth. Schwann, in 1839, (*Mikroskopische Untersuchungen*) grasped at once the truth, within reach of which his predecessors had stood so long, and said, "Animal cells are completely analogous to vegetable cells and quite as independent in their mode of growth. It is the distribution of the nutritious fluid alone which depends upon the vessels." This so radical proposition was at once received by Muller (*Jahresbericht*, 1839) without the least hesitation, although directly contrary to the opinion he had expressed only four years before, and his acceptance no doubt greatly aided the favorable reception which the dogma received from the scientific world. Unfortunately, as so often happens, many of the disciples have gone beyond their master, both in enthusiasm and in their desire to apply their new doctrine to every phenomenon which they may happen to meet.

It was now assumed that a body was a "simple aggregation of cells growing independently of each other, but which by a natural correlation of forces maintains a due symmetry of development;" an assumption so peculiarly simple and well fitted for the case, that one is a little surprised that it was not thought out before.

About the same time Dujardin (*Annal des Sciences Natur.*, Tom. VII.) discovered that certain forms of animal substance, which he called "sarcode," were capable of movement. Meyen, Max Schultze, and Joh. Muller investigated these masses, which are to be found within animal bodies as well as free, and although they could not find nerves, irritability was ascribed to them. Meyen made an attempt to show that infusoria were unicellular organisms, but, although he failed, still "sarcode masses" came to be considered as independent beings.

Siebold next discovered (*Froriep Notizen*) that in certain eggs the vitelline spheres were endowed with contractile properties, and as he found that this contractibility was spread to many different cells, he, in common with Kolliker (*Wurzburg Verhand.*), was lead to affirm that all cell-contents are contractile. Virchow (*Archiv.* Band V.) gave a still more decided and precise expression of opinion, that ciliary movements are owing to a contractile substance; and in 1856, Leydig and Ecker (*Handbuch de Histologie.*) declared that in their opinion the movements discovered by Siebold were evidences of life.

In 1859, Kuhne (*Muller's Archiv.*) undertook a series of observations, which demonstrated the similarity of the phenomena observed at the death of muscular substance and "sarcode;" but by all these observers, however,

the identity of these substances was not thought of, and the identity which is now by many considered to exist between sarcode and the lower forms of animal life did not present itself to their minds.

About the same time, Max Schultze, (1863,) Brucke, (1864), Hackel and Kuhne (1864,) made a series of comparisons and observations in respect to the "sarcode" and vegetable protoplasm, which advanced our knowledge of the phenomena attendant upon the life of the lower organisms to a very great extent, and Brucke (Elementar-Organism), who regards all cells as elementary organisms, put forth the theory generally received among the German biologists as his, in this fashion :

"If we consider how complicated the mechanical arrangements must be which lie at the root of the spontaneous movements of cells, and if we consider further that up to this present time we have only paid attention with the microscope to obvious and perceptible movements, and that no regard has been given to the arrangements by which the little organism nourishes itself, increases in size and begets its like, nor any to those means by which it displays its specific attributes; if we, I say, consider all this, we must necessarily recognize that we have to deal here with an organism, the complication of which although truly not comparable with that of an animal, nor affording any good reason for believing that it is itself composed of innumerable small organisms, yet constitutes one to which we may fairly attribute the possession of an highly artificial structure, the architectural elements of which are completely beyond our grasp."

So much has been written and been said about these "sarcode masses," that a brief glance at some of their characteristics may be advisable at this point, as many references must be made to them in the course of this paper. Prof. Ecker has said (quoted by Jabez Hogg, *Microscope*, page 373, ed. 1867); "The properties of this substance 'sarcode' in its simplest form, are seen in the ameba; the body of which, as is known, consists of perfectly transparent albumen-like substance, homogeneous, in which nothing but a few granules are imbedded, and which presents no trace of further organization. This substance is in the highest degree contractile; and from the main mass are given off from time to time, now in one part and now in another, perfectly transparent rounded processes which glide over the glass-slide like oil, and are then again merged in the central mass. *There is no external membrane.* (Italics mine.) In the body of the ameba there occur, besides the granules, clear spaces with fluid contents which are sometimes unchangeable and firm, and sometime exhibit rhythmical contractions."

This living being, or mass of organized matter, which you will, has always been, and naturally, a source of much interest to the "students of the objective," as the naturalists would fain be called to distinguish them from those who study consciousness by preference; and truly to every student, whether

an automatonist or not, the existence of a living being which moves without limbs, eats and assimilates food without organs of digestion, procreates its kind without any specific apparatus, must always be a source of unfailing interest, while a mass of organized matter which can grow by the assimilation of particles from around it, and can make by division other masses like unto itself, is not by any means less wonderful.

Precisely similar masses of animal matter ("sarcodæ") to this ameba are to be found in the bodies of animals, and according to their different situation have received different names. Pus corpuscles have been proved to travel in all directions, and Recklinghausen by feeding them has been able to show not only that they may be generated at a distance from where they are found, but also that they may enter into the cells of a dead cornea (Stricker). Stricker (Wiener Sitzungsberichte, 1864,) has shown that in the construction of the body of the embryo, the movements of cells to form elementary organs depend on the movement of embryonic cells within the ovum. Cohnheim also, by showing that the colorless corpuscles can leave the vessels and migrate through the tissues, has demonstrated a fact the importance of which seems indeed not even yet to have impressed itself upon the medical mind. Preyer has shown that the colorless corpuscles of the frog eat the red ones, or at any rate take them into their substance. The analogy between them and the "sarcodæ-masses" is well marked in one respect,—the blood corpuscle and the sarcodæ mass alike flow around their prey.

Of course it must not be assumed that the movements of the "sarcodæ-masses" depend on any exhibition of force having its origin within the mass, since to do this would be to go against the great authority of Ed. Weber, who expresses himself thus (Muller's Archives, 1858): "According to my view, the movements of a living body are not dependent on two kinds of force, viz.: first, on forces which are exerted on this body by other bodies, and secondly, upon forces which are exerted upon this body by life; but there is only one kind of force upon which the movements of all bodies depend, namely, the force which is exerted by other bodies upon them." This is simply a very German and round-about way of saying that all movement is owing to the action and re-action of the molecules of a body upon each other, and that no molecule originates its own motion; a proposition which, within certain limitations, receives the assent of all to-day. Thus the movements of cilia are accelerated by warmth; cooling the water in which the *ameba diffuens* is living, checks its movements, but if the temperature is raised the movements are resumed as actively as ever. Max Schultze has shown that even in warm blooded animals, where the vitality of the locomotive cells is the lowest, warmth will cause rapid movement. Kuhne has observed that at 95° Fahr., the ameba assumes a spherical form (Protoplasma, 1864); and, finally, Peremeschko (Weiner Sitzungsberichte, 1868,) states

that at a temperature of from 89.3° — 93° the large cells at the base of the yolk cavity in the eggs of fowls may be seen to contract and dilate. It is also noticeable that mechanical stimuli are effectual in many cases, and Kuhne states that having stimulated the margin of the cornea he saw (in the frog) the stellate cells become fusiform. Stricker (Weiner Sitzungsberichte, 1867,) also says that a series of contractions and expansions may be produced at will by slight pressure upon the cover glass, while examining blood diluted by a $\frac{1}{2}$ of 1 per cent. solution of common salt. Both the "sarcode masses" and the blood corpuscles have been proved, by Kuhne, Neuman, and Galubeur, to answer in the same way to electric stimuli. These contractions are very peculiar in this respect, that there is a direct relation between the movements of the contained granules and the contraction of the sarcode mass, and also when pressure is used the movement of the cell can be stimulated to a greater or less degree according as the process is repeated, the second or third repetition of the experiment being much more successful than the first. (Stricker.)

From these facts, it does not seem illogical to assume that in all cases motile cells and sarcode masses are essentially forms of the same thing, and that not until it can be proven that there is no outside stimulation of any kind received, will it be lawful to consider their movements as either automatic or voluntary, for if the automaticity or volitional character of the ameba be assumed by analogy, the same must be assumed of the blood corpuscles, of the corneal corpuscles, of the pus corpuscle, and of the pigment cell. There is likewise no differentiation in these cells into a cell wall and cell contents, and the only differentiation in the mass is the moving granules within it. These movements are usually considered as of that kind commonly described as Brownian movements. It is possible that another proposition is tenable, that there may be a force-originating movement within the cell. The granules, whether they are introduced from without or are the natural cell contents, may be considered to move as the result of the action of the forces within the cell; and it is also claimed that these forces are either the same or equivalent to the forces which cause the movement of the cell; since, when the sarcode mass is globular, that is, in a state of rest, the dancing of the contained granules takes place, but when the mass makes movements the granules cease to dance. This movement of the granules is either continuous or vibratory. The cell masses move together in the cornea, and it has been demonstrated that the flowing movement is more rapid than the contractile movement of the cells.

In the foraminifera, the sarcode masses which project through the cell wall, which in these cases is real and not the result of double refraction, contain granules capable of motion. In these threads, which have been often examined and the movements of the granules carefully studied, a gliding

movement may be seen among the grains, and Max Schultze thus describes them: "As the passengers in a broad sea swarm together, so do the granules in one of the broadest threads make their way by one another, oftentimes stopping and hesitating, yet always pursuing a determinate direction, corresponding to the long axis of the thread. They frequently become stationary in the middle of their course, and then turn round, but the greater number pass to the extreme end of the thread and then reverse the movement." Such are the conditions which appear in the life history of the motile cells.

In the cells, in their fixed and determinate place, in the cells which enter as integral units into the construction of the fixed tissue masses of the body, another series of investigations has been made, and a battle has been for some time fought and is still raging in a direction different from that over the tissues previously mentioned, but both are tending onward toward the same end.

Among the English writers, Carpenter and Beale stand as leaders of the two opposite sides of the discussion of the anatomy of the fixed cell and its method of growth, and these two views are briefly stated thus: Carpenter considers the constituents of a perfectly formed and active cell to be the cell wall, the cell nucleus, and the protoplasmic or other cell contents, and insists on the real and actual existence of all these; also affirming that the nucleus is probably the most important constituent of the cell, since in most cases its fission proceeds in new formation by subdivision. Beale, on the other hand, considers this style of description as entirely erroneous, and regards every cell, or, as he phrases it, "anatomical elementary part," as composed of matter in two states of existence; one portion, that which by others is considered as a "nucleus," he calls "germinal matter," and the "cell contents" he describes as "formed material," and affirms that it has ceased to manifest any purely vital phenomena; adding that "all living entities, from the smallest particle to the most complex cell, consist of matter in these two states." He says that by carefully examining tissues, masses of germinal matter may still be found continuous with each other, and that so far from cells being united by the outgrowth of processes, they have simply grown apart by the spreading out of the formed material; and he continues, "so far from rays being shot out at different parts of the cell wall and having unequal growth, they are continuous from the very first." He also declares that "the functioning of the cell is done by the formed material." Thus, in effect, he declares that physiological action, which by all others is considered as a proof of life, is in reality the very reverse.

The discussion has also run high in Germany. Max Schultze (*Das Protoplastm der Rhizopoden*), takes the embryonal cell as the basis and starting point for his definition, and as it is very perfect and complete, I quote at length. "The most important cells, those in which the fullness of cell life,

the unlimited power of tissue formation, is most distinctly evident, are clearly the embryonal cells which proceed from the cells of the ovum. We may see in these the archetype of a cell, and yet they consist only of a little mass of protoplasm, and a nucleus, and these, both protoplasm and nucleus, are the result of the division of similar constituents of another cell. Such cells include a force in their interior essentially possessed by the protoplasm (answers to Beale's formed material), although it is true that the nucleus plays an important part not yet sufficiently understood. The protoplasm is no further isolated from external objects than by the circumstance that it will not combine with the surrounding medium, and that it constitutes, with the nucleus, an independent whole. A distinct membrane may, indeed, appear on the surface, formed by the conversion of the outer layer of protoplasm; but then it must be allowed to be an early indication of a retrograde process; a cell invested by a membrane can no longer divide—that is a power possessed by the enclosed protoplasm alone. A cell with a membrane, differentiated from the inclosed protoplasm, is like an incysted Infusorial animalcule."

Brücke (*Die Elementer Organismen*), goes still further, and says: "We have no positive information either respecting the origin or functions of the nucleus; even the constancy of its occurrence appears to be subject to certain limitations, especially if we consider the cells of cryptogams, and do not start with the preconceived idea that the nucleus is present whether we find it or not." This view of the non-essentiality of the nucleus grows upon one as the fact is considered that many times when the nucleus is present a cell will divide and leave the nucleus sticking to the wall of one-half, and the other half will develop a nucleus of its own within the protoplasm, or cell contents, by whichever name we may be pleased to call it. What the nature and function of the nucleus is, may sometime be found out; but it has not been, up to the present.

With regard to the genesis of these fixed cells, and their mode of development, much may be said for and against the various theories which have been advanced; but when, in 1855, Virchow made the declaration "*omnis cellula, e cellula*," he laid the real foundation of all the rational cell theories of modern times. It is true that this has met much opposition from all classes, both from the thinkers, for whom an allurements offered by the spontaneous generation theory has charms, and also from the most earnest opponents of the same theory, who declare that every cell structure has its nucleus ready in the egg.

In 1867 Legros and Onimus (*Journal de l' Anat.*), in their experiments on the generation of leucocytes, pointed out that if little sacks of gold-beater's skin, filled with the serum of blisters, filtered to remove all morphological elements, be placed beneath the skins of rabbits, a large number of leucocytes appear in the fluid in the course of twenty-four hours, which in their

opinion must have been formed in the fluid. Messrs. Cornil and Ranvier, and Lortet, of Lyons, objected that the leucocytes might have penetrated, by virtue of their ameboid movements, from outside; to this Onimus replied by making the sacks of parchment paper, and still the leucocytes appeared. One is at a loss to understand why, if leucocytes were to be spontaneously generated in the serum, they could not be generated just as well if Onimus had put the serum in a glass jar as well as where he did, keeping up the temperature, etc., as before.

These experiments by Legros and Onimus, and the fact of the appearance of leucocytes upon the free surface of a wound, were esteemed by Broca, Robin, Bennett and Bastian, sufficient evidence for the propounding of the theory of the free development of cells in a blastema. On the other side must be mentioned the brilliant experiments of Pasteur, by which he proved that the alleged spontaneous generation of leucocytes was an erroneous conclusion, and founded on insufficient evidence, and the appearance of leucocytes in the serum of wounds was demonstrated to be caused by the budding of cells. Many experiments have been made on both sides, but the doctrine "*Omnis cellula, e cellula*" still holds its ground.

The cells are propagated in three ways; by fission, by gemmation and by the endogenous mode. According to Brücke, "these last originate like embryos in the parent cell, and gradually increase in size, whilst in the other cells the substance of the mother cell breaks into fragments" (Stricker). An example of the endogenous mode of development is seen in the eggs of insects, whilst that by fission occurs in the segmentation spheres and in cartilage, when, by gemmation, a portion of the cell becomes detached and a new cell grows, and a new nucleus develops.

Still, since the migratory power of the white blood corpuscles has been ascertained, (Volkman and Steudenner have seen the migration of ameboid cells into the epithelium,) doubts may arise whether any other cells beside these are capable of undergoing multiplication. With the sole exception of cartilage, in which there can be no more doubt of the occurrence of cell fission than in the fertilized ovum, the structures which result from the fission of cells in the tissues of the adult organization, when in health, are not such as to render a mistake impossible. In cartilage we see the descendants surrounded by a firm matrix, formed by the body of the mother cell; but in no other tissue have we any surety that the three or four cells which may be lying together are the progeny of one mother cell, or are cells which have migrated thither from other parts, unless the cells, as sometimes happens, are enclosed in a common envelope, which is really a mass of differentiated protoplasm, which probably formed the wall of the mother cell before the fission took place. "It is even conceivable that the colorless blood corpuscles are destined for the regeneration of all the tissue of the animal body. Nor can

any solid objection be raised to this view from the knowledge gained from the standpoint of the history of development. The blood, indeed, proceeds primarily from a different germinal lamina form; for example, the epithelia; but primarily, all cells are derived from the segmentation spheres, and these form the fertilized ovum." So says Stricker, and to this doctrine, for the present, I desire to express my entire adherence. Such is the development method of all the fixed tissues alike, the continual segmentation and gemmation of cell indefinitely, from the time the first segmentation takes place until the adult body is complete.

Thus, in a brief way, may the discussion of the nature and condition of cells both motile and fixed, be said to stand at this present time; some of the authorities declaring for a doctrine of what may be called a differentiation of these cells by reason of their place in the body, others for a differentiation which is claimed as inherent in the cell. It is unfortunate that this word has come into use to express the smallest anatomical elementary part in any body, either animal or vegetable, since the common opinion of the most competent judges is that the said cell is solid, or at least is non-vesicular. This is also the characteristic of Dujardin sarcode masses. This sarcode mass is by many considered as a mass of matter of which life is an inherent attribute; it is even spoken of as the physical basis of life, a mass of matter which has a tendency to grow.

Now if by life an existence is intended in which a certain round of events takes place, each event conditioned by and originating in the preceding series of events, then doubtless this is the physical basis of life, it is "living matter." It does not, however, originate a progressive metamorphosis within itself, so far as any eye has seen. It grows under suitable conditions, and that is all that can be said of it. If we turn now from the consideration of this sarcode mass, and examine the behaviour of what has been claimed as at least own cousin to it, the white blood corpuscle, what do we see? We see that an entirely different series of conditions are necessary for existence. We see that instead of, as does the sarcode mass, enduring vicissitudes of temperature, when this is perturbed it dies. It is the boast of many physiologists that they have been able to keep these corpuscles alive, but if they are only sarcode masses, why do they not live as other sarcode masses do. In a word, if the existence of the whole is the sum of the existence of its parts, and the parts are, by continuation of the proposition, independent of the whole, then the whole being dependent on the parts, why do the white corpuscles die under circumstances in which by analogy they should live?

Again, no series of experiments has ever been able to demonstrate the differentiation of this "living animal substance," this protoplasm, this "sarcode," excepting in one instance, and then not the individual cell by and for itself underwent the change, but a number of cells as an aggregate.

“Rechlinghausen communicated a singular discovery a few years ago. After a series of days, one may see the lymphoid cells (white blood corpuscles, W. H. B.) become transformed into red blood corpuscles, in blood taken from the frog, if one understands preserving their vitality. For this purpose, the blood is to be received in a glazed porcelain dish, which is to be placed in a large vessel, the air in which is to be daily renewed, and kept constantly moist. After twenty-four hours, the coagulation gives place to a process of liquefaction; a few days later islands of lymphoid cells have become formed; after ten to twenty days one may recognize the first of the new blood corpuscles” (Frey). Accepting this result at the full value that is claimed for it, that it shows beyond a peradventure, the spontaneous differentiation of protoplasm, it is a most unfortunate result for the gentlemen who claim that free protoplasm becomes “organized,” for it is a differentiation backward. For no one, scarcely, since the discovery of the part played by the different constituents of the blood in the formation of tissues of however low a grade, claims that the red corpuscles are more highly endowed with vital attributes than the white.

So that not even the force which, it has been said, can originate a “living matter mass” from the dead, can conduct that living mass into anything higher than a retrograde metamorphosis. How different the course of blood corpuscle's life history when within the body, may at any time be seen by recalling the experiment of Connheim. It is true that the formation of the first motile cells of the blood plasma, would be almost a demonstration, were it not that these cells are always to be found in the blood of the frog, and it is almost certain that at the beginning of the liquefying process some of these cells are set free which have previously been retained among the fibrinous meshes of the clot, and thus have multiplied themselves in the blood plasma and, as their vitality was lessened, underwent retrograde metamorphosis into red blood corpuscles.

Is there any thing in the life and development of the cells, which has been sketched, any indication or omen of that aggregation and differentiation which is assumed to take place whereby man as well as the smallest rotifer becomes possessed of a form and members with special functions, a differentiation for which no cause whatever is assigned, and in respect to its method nothing whatever is known? Is it reasonable, simply from the view of an observer, to assume, as many do, that an unlimited reproduction of cells, so called, can in some unaccountable way explain the difference between the series of phenomena which cause or constitute the life of the *Brachionus Pala* or that of a man? Is it not necessary to declare, quietly and soberly, that however true it may be that all the phenomena which constitute the life of the monad can be explained by an hypothesis such as this, more than “the inherent attributes of organized matter” is needed to explain the phe-

nomena of the life of man? Is not one of the most marked states of disease with which the human body is ever afflicted, the result, or at least the accompaniment, of just this species of cell development already mentioned? Is not the terrible disease called cancer, nothing else than the development of cells irrespective of their surroundings? This development we recognize as an abnormal action, and yet we are told cellular development is the only development, and are requested to believe that a human body is only a mass of cells in which differentiated constitution has produced a differentiated function. One feels unwilling, in view of the great prejudice against such things at this date, to make the assertion, still it does seem as if some force besides the action upon the body of that which is without, must be assumed to explain the phenomena of nutrition, and this force—Weber to the contrary notwithstanding—I believe to act from within the body, and to be life; while at the same time I fully coincide with the view that the life of a body is the life of its anatomical elements, governed and controlled in some manner which, for the present at least, is not to be reached by any means of investigation known to microscopists.*

SELECTIONS:

SURGERY.

A DRUGGIST'S MISTAKE CURES THE PATIENT.—Dr. J. H. Claiborne reports the case in *Gaillard's Medical Journal*. A babe, one of a large family of healthy children, had had for one year a most intractable eczema, in all its forms, stages and varieties. The Doctor had used everything, but without avail. One morning the child was brought in, worse than usual, and the Doctor hastily wrote two prescriptions. In two weeks the child was much better, and a few days later entirely well.

The prescriptions were: R. oil of cade; sapo viridis, aa, ʒiv; alcohol, ʒj. M. S. Apply once a day. R. ung. ox. zinc. ʒij; oil of cade, ʒij. M. S. To be kept on the eruption all the time. An examination showed that the druggist had used in each oil of *cajeput*, instead of oil of *cade*.

TREATMENT OF ORCHITIS.—Dr. Sabadini, of Constantinople, following the plan of treatment advocated by Dr. Bourdeaux, applied an ointment composed of one part of iodoform and ten parts of vaseline with success in a case of gonorrheal orchitis. The pain rapidly ceased, and the swelling disappeared in eight days.—*London Med. Record*.

PRIMARY AND SECONDARY AMPUTATION.—Prof. Richet, in a lecture delivered at the Hotel-Dieu (*Union Med.*), makes the following observations on the question of primary amputation, etc.:—

I only very rarely practice amputation immediately after great injuries, and only when my hand is forced. At all epochs surgeons have been divided in opinion as to which of these two procedures it is most advantageous to adopt. During the first third of my career I was a convinced partisan of the necessity of immediate amputation, and cannot therefore blame those who practice it at the present time with a conviction as strong as that which I then entertained. But I have gradually become converted to secondary amputation, and now am one of its most earnest defenders. The theory of immediate amputation appears, indeed, at first sight, very seducing. It would seem that a patient in whom a violent injury had torn the muscles and crushed the bones could only be the gainer by substituting for this tearing and crushing a clean and regular wound. Unfortunately, the practical results do not agree with the theoretical view and reasoning. At the beginning of my career, I found the patients on whom I had performed amputation succumbing within the forty-eight hours. Malgaigne, to whom I communicated my want of success, told me that he had gone through the same experience, and this it was which determined him to investigate the results of these immediate amputations. He avowed that the statistics were frightful, and that the mortality attained the figure of 86 per cent. So elevated a mortality seems of itself sufficient to prevent a surgeon following this practice; but it is of interest to seek for its reasons.

When an individual has undergone a violent injury, he suffers from what is known as *shock*. Not only is the temperature lowered, but the circulation is delayed to such a point that the soft parts soon assume a violaceous color, and then become gangrenous, at least in places. Soon there supervene intramuscular tumefactions and subcutaneous emphysema, the precursor of sphacelus. There already exists in all these cases manifest disturbance in the two greatest apparatus of the economy—functional disturbance of the nervous system and of the circulatory system—and all of a sudden is added to these pre-existing disturbances the new shock of a mutilation. It is certain that a considerable moral depression, caused by the loss of a limb, is added to the physical depression; and this moral depression should be largely taken into account, owing to the chances of the failure of the operation. But this is not all. It will happen—especially in private practice—that we meet with a refusal when we have declared that immediate amputation is necessary. What happens then? If the patient dies, it will be said that he must have died under any circumstances, and would have done so more quickly under the operation. But if he recover—escapes, as it is called—which is not rarely the case, the surgeon and surgery will both become the

objects of serious and painful blame, which is also a grievous thing. Even when the patient, as is sometimes the case, does not succumb very soon after the operation, he will continue exposed to those purulent burrowings which so frequently follow the intramuscular sanguineous effusions. Then there are the muscular retractions and conical stump. Suppose, on the other hand, you decide for abstention, there will be necessarily a considerable number of cases prove fatal; but you may feel assured that these belong to the class of those for whom immediate amputation would certainly not have proved of any avail. Others, fewest in numbers, will traverse the first accidents with success. The nervous system recovers itself little by little, the circulation regains strength, and the temperature rises; and, as a consequence, two or three days afterwards, normal inflammatory phenomena begin to appear. Is this, then, the moment at which amputation will have the *greatest chance* of success? Not yet. Such, at least, was the opinion of Velpeau and of Roux, with which I entirely coincide. They never operated before the fifth or sixth day, and this also is my habit of proceeding. I may finish with an anecdote which may impress this practice on your memory. Questioned one day by a *confre*, who asked me, pointing to a patient upon whom I was delaying the operation, "What is your object in waiting in this case?" "I am waiting," I replied, "until he asks me himself to operate; and that will not be very long, for he accustoms himself to the idea on seeing that it is no longer possible to save the limb. The operation will then become a deliverance, instead of a sacrifice—a sacrifice on which he would not now decide without repugnance."—*Mo. Abstract.*

THE MUSCULUS VOCALIS AND VOICE REGISTERS.—Jelenffy believes that this muscle never participates directly in the vibrations of the vocal cords, and that the vibrations of the edges alone of the latter, produce sound waves. Regarding its functions, he has arrived at the following conclusions: 1. The thyroid cartilage being fixed, the vocal muscle draws the arytenoid cartilages to a median position. 2. When the latter are fixed, it draws the thyroid backward and shortens the vocal cords. 3. During the production of vocal sounds, it acts as an obturator to the air pressure in all the registers. 4. If the muscles be tensed precisely in an anteroposterior direction, the vocal cords are closely approximated, and the glottis completely closed: through this procedure can chest tones only be produced. 5. When the muscles act alone as an obturator to the air pressure and are not precisely tensed in the median line, the glottis has an elliptic shape, and is not closed, only narrowed. Falsetto tones alone are produced by this mechanical movement. 6. In the different positions and shape of the glottic opening lies the cause of the difference between the chest and falsetto voice.—*Archives of Laryngology.*

FRACTURE OF THE NASAL BONES TREATED BY A NEW METHOD.—Dr. Lewis D. Mason, Surgeon to the Long Island College Hospital, has reported a number of cases treated by his method, one of which is appended as illustrating the principle.

J. N. G. aged 14, April 5, 1880, fell upon his forehead and face, sustaining a compound and comminuted fracture of nasal bones, with fracture of nasal processes of sup. maxillae.

April 6th, the patient was etherized, and a careful inspection of the fractured bones made. The nasal processes of both superior maxillae were involved. The line of fracture of left was near the base of the process, on the right side near its middle. The bridge was very much depressed and flattened. The right nasal bone was lateralized to the right, and made a small puncture through the skin on that side. There was considerable edema of eyelids, and the face was somewhat puffy. Viewed from either side the deformity was very great, the end of the nose seeming to be at right angles to the depressed bridge.

After elevating the depressed fragments, and overcoming the deformity as much as possible, in the usual manner, Dr. Mason passed an ordinary surgical needle (ground to a drill point) through the line of fracture on either side, thus supporting the nasal arch. To complete the dressing and give it further stability, a piece of thin rubber about an inch wide was slipped over the head and point of the needle, and rendered moderately tense, so as to exert a gentle compression. Small pieces of cork were placed on the head and point of the needle to protect the face. The patient was placed in bed, and evaporating lotions of an agreeable temperature applied over the dressing. The case progressed favorably, and on the eleventh day the needle was easily removed without an anesthetic, and without pain to the patient.

The cicatrix, if any, will be scarcely noticeable. The contour of nose is excellent over site of needle, a slight periosteal thickening renders the bridge of nose a line or so too prominent, but this is observed only on close inspection, and will undoubtedly in due time be absorbed. At no time subsequent to the operation was there any pain or uncomfortable sensation at the site of the needle, nor did its removal cause any suffering. The result may be said to be perfect.

PHARYNGEAL CATARRH.—Jacobi uses the spray, introducing the tube through the nose. When introduced, let the patient inhale once or twice; when he feels the spray in the mouth, cease. The solution used is one of nitrate of silver, in strength from one-fifth to one-tenth per cent.; this is injected twice a week; in the intervals the patient washes out the nasal cavities by (snuffing up a saline fluid) three to four times daily. He says that as a rule cases will get well in two to three months.—*Archives of Gynecology.*

RUPTURE OF THE PLANTARIS MUSCLE.—In *The New York Medical Journal and Obstetrical Review* for July, 1881, A. B. Judson gives three cases in which he diagnosticated this injury. He remarks that it is seldom found described in systematic works on surgery, although its occurrence is probably not very uncommon. Its most remarkable feature is the trivial nature, or almost entire absence, of an immediate cause. Persons are attacked while quietly walking in the street, stopping suddenly under the impression that they have been shot in the leg. Apart from ecchymosis, which is met with in but a limited number of cases, the only objective signs are edema and deep-seated induration, and these are by no means constant. If there is an obvious gap in the muscles, with an adjacent muscular tumor, the case is to be considered one of rupture of muscles, the term *coup de fouet* being conveniently used to indicate those cases in which the exact lesion remains undetermined. The diagnosis depends on (1) the suddenness of the attack; (2) the insignificance of the apparent cause; (3) the location of the trouble; (4) the pain, which is absent or slight when the part is at rest, and produced or aggravated by those motions of the limb, active or passive, which disturb the muscles of the calf; and (5) the great disproportion between the objective and subjective symptoms. Recovery is always protracted, and is probably not much facilitated by treatment, which, however, should not be neglected, for the prognosis is sometimes unfavorable, especially when the affected limb is the seat of deep varicose veins, or shows traces of former phlebitis. Local and general remedies should be directed toward the relief of pain. Repair of the injured structures should be promoted by preventing motion or disturbance of the part affected. The condition which seems best adapted to secure this object is that of enforced fixation with the knee moderately flexed and the ankle moderately extended. As recovery progresses locomotion will be facilitated by a high-heeled shoe, which prevents the foot from being unduly flexed on the leg. Cases of this injury present opportunities for the exercise of judgment in the decision of the question of abandoning further rest and resorting to motion and exercise.

TREATMENT OF HIP DISEASE.—In the treatment of hip disease, extension has been regarded as a means (1) of overcoming the muscles spasmodically contracted about the diseased joint; (2) of simply fixing the joint; (3) of separating the bones forming the joint. In order to determine the function of extension, the following observations were made on the cadaver: The body of a child two years of age was first used. Needles were driven, one into the pelvis and another into the trochanter, on the same side; the flesh above and below the needles were incised, so that traction upon the limb, necessarily involving the soft tissues, did not drag upon the needles. An extending force of one hundred and fifty pounds was then applied, the

pelvis being fixed. No difference in the distance between the needles could be noticed on careful measurement. In a second experiment, on an adult, with the needles inserted in the same way, an extending force of one hundred pounds was applied, but no separation of the needles was observed. It appears, then, extension does not separate the femur from the acetabulum when the parts are in the normal, fully developed condition. Atmospheric pressure holds the head of the bone firmly in place. If, however, the collar, which is essential to a tight ball-and-socket joint, be not firm, the yield of the soft parts allows the head to be drawn from the acetabulum. The author would infer that the relief given by extension in some cases of hip disease is due to the actual separation of the bones involved in the joint, but that in the early stages of the disease there is no separation. In these cases the extension prevents the crowding of the femur against the acetabulum, by counteracting the muscular spasm.—*N. Y. Med. Journal.*

THE COMPARATIVE ACTION OF HYDROBROMATE OF HOMATROPINE AND OF SULPHATE OF ATROPIA UPON THE IRIS AND CILIARY MUSCLE.—Dr. Chas. A. Oliver, of Philadelphia, having performed some physiological experiments with mydriatics, reports his results obtained from homatropine hydrobromate and atropia upon young and healthy eyes, in the July number of the *American Journal of the Medical Sciences*. Among his conclusions it is stated that *complete* ciliary paralysis can be obtained by a single instillation of $\frac{1}{16}$ gr. of hydrobromate of homatropine at the time of the utmost action of a single instillation of the $\frac{1}{16}$ gr. of the same salt, thus allowing ametropia to be accurately determined. Complete paralysis of the ciliary muscle can be obtained by $\frac{1}{16}$ or $\frac{1}{8}$ gr. of sulphate of atropia. One-twentieth of a grain of the homatropine hydrobromate produced maximum dilatation of the pupil, whilst it was impossible to obtain it with one-fortieth.

ACONITE IN TONSILLITIS.—Washington has so often verified Pinger's dictum respecting the effects of aconite in acute tonsillitis, that he considers it almost a specific. He gives to an adult five drops of the tincture at once in a little water, and one fourth as much every twenty minutes afterward, until the pulse is reduced to 90 and profuse diaphoresis is produced; then a similar dose is continued hourly. Hot poultices to both sides of the neck, and a purgative dose of calomel, if indicated. If this fail to abate the disease, the next day the tonsils and surrounding parts are painted with a solution of nitrate of silver (gr. xxx— $\frac{1}{2}$ j.), and crystals of chlorate of potash dissolved in the mouth to be afterward swallowed; also five drops of the tincture of belladonna and two drops of the tincture of aconite root every two hours.—*Archives of Gynecology.*

THE USE OF ALCOHOL IN THE TREATMENT OF AURAL POLYPI.—Politzer recommends the use of rectified spirit for the destruction of those remains of polypi in the ear which are beyond the reach of instruments. The action of the alcohol does not depend on the structure of the growth. Soft, round-celled polypi are, indeed, more frequently and quickly caused to disappear than firm fibromata; but even the latter not unfrequently shrivel up so completely after a prolonged application of alcohol, that not even the smallest trace of them remains behind. In concluding his paper, Dr. Politzer sums up the indications for the use of alcohol as follows: 1. For the removal of the remains of polypi in the external auditory meatus, on the membrana tympani, and especially in the tympanum, which cannot be removed by operation; 2. In cases of multiple granulations in the external meatus, and on the tympanic membrane; 3. In diffuse excessive proliferation of the mucous membrane of the middle ear; 4. In cases where the instrumental removal of polypi is rendered impossible by mechanical impediments in the external meatus; 5. Experimentally as a substitute for operation in the case of timid persons and of children, in whom operative proceedings are difficult and often can only be carried out under anesthesia.—*Brit. Med. Jour.*

A NEW LARYNGOSCOPE.—Schaeffer has taxed his ingenuity to produce a simple instrument which will be transportable and non-breakable, and one that can be used with any or all sources of light. It consists of two cylinders of metal, an inner and outer, the latter precisely like McKenzie's well known cylinder with a plano-convex lens. The inner, perforated by an oblong opening upon its side, is so arranged at its base, by means of a graded ring easily introduced and fastened in its bottom, that it will fit over the glass chimney of any ordinary lamp. This cylinder is placed over the chimney, the second cylinder slid over it so that the lens in its side corresponds to the perforation in the inner cylinder, and also to the center of the illuminating flame, and the apparatus is ready for use.—*Archives of Laryngology.*

MEDICINE.

USE OF QUININE WITH NERVOUS SEDATIVES.—Dr. Langdon Gray recommends the use of quinine in doses of five to ten grains when the bromides are to be used in full doses. In epilepsy he found that it increased their anti-epileptic tendency, whilst it diminished or dispelled the bromism. It acts in a similar way to belladonna and hyoscyamin. He believes that it may be a general law that tonics and stimulants increase the sedation and lessen the depression of nervous sedatives. Chloral with whisky, or given in a glass of sherry, acts better than when given alone.—*The Boston Medical and Surgical Journal.*

OXIDE OF ZINC IN DIARRHEA.—Cousin confirms the excellent results obtained by Gubler and Bonamy from the use of oxide of zinc in diarrhea. The majority of cases treated were obstinate and chronic, characterized by abundant and numerous dejections; some were due to simple intestinal catarrh, whilst others were caused by improper food or by cold, others again being symptomatic of tuberculosis. In each case various remedies (opiates, astringents, &c.) had been employed without result. Roux resorted finally to oxide of zinc, which yielded marked and rapid effects; thus diarrhea of six, four and three months' standing, was favorably modified within a few days after the administration of the first doses of this remedy. The formula employed, which is the same as that of Gubler and Bonamy, is as follows:

Oxide of zinc 3j;
Bicarbonate of soda gr. x.

Make into four powders, one powder to be taken every three hours. The union of the soda bicarbonate with the oxide of zinc causes the latter to be more readily tolerated.—*Le Progres Medical. Practitioner.*

CYSTITIS.—Dr. Skene, of Brooklyn, gives the following as almost a specific in cystitis, especially in the earlier stages, affording rapid and lasting relief:

R Acidi benzoici. } aa gr. x;
Sodii biboratis. }
Inf. buchu. 3 ij.

M. Sig. This quantity to be taken three or four times a day. The diet should be carefully regulated, and the skin and bowels kept in an active condition.

EARACHE.—"In the course of practice you will often be called upon to attend a case of Earache, This means, pathologically speaking, acute inflammation of the membrana tympani. Now, in such a case you may quickly subdue the inflammation, relieve the patient from the excruciating pain he is suffering, and save him, perhaps, from subsequent confirmed deafness. The treatment, from which such a very desirable result may be obtained, is similar to that which you will find so beneficial in analogous cases of eye diseases—viz: leeches behind the ear, hydrarg. c. creta and belladonna powders, with warm fomentations."—*Wharton Jones in London Lancet.*

DR. JOHNSON'S DIET FOR EXCESS OF FAT.—The patient *may eat*: lean mutton and beef; veal; lamb; tongue; sweetbread; soups, not thickened; beef-tea and broths; poultry; game; fish; cheese; eggs; bread, *in moderation*; greens; spinach; watercress; mustard and cress; lettuce; asparagus; celery;

radishes; French beans; green peas; Brussels sprouts; cabbage; cauliflower; onions; broccoli; sea-kale; jellies, flavored but not sweetened; fresh fruit in moderation, without sugar or cream; pickles.

May not eat: Fat bacon and ham, fat of meat; butter; cream; sugar; potatoes; carrots; parsnips; beet-root; rice; arrow-root; sago; tapioca; macaroni; vermicelli; semolina; custard; pastry and puddings of all kinds; sweet cakes;

May drink: Tea; coffee; cocoa from nibs, with milk, but without cream or sugar; dry wines of any kind in moderation; brandy, whisky, or gin, in moderation, without sugar; light bitter beer; Apollinaris water; soda water; seltzer-water.

May not drink: Milk, except sparingly; porter and stout; sweet ales; sweet wines. As a rule, alcoholic liquors should be taken very sparingly, and never without food.—*Medical Record*.

EPIDEMIC OF SWEATING SICKNESS.—M. Jules Rochard has reported (*Le Prog. Med.*) to the Academy of Medicine on the epidemic which occurred in the island of Oleron during the summer of 1880. The disease began in June in the village of Allards, and remained there till the 2d July, during which time there were five deaths. In July a death occurred in a neighboring village, and became the cause of a new epidemic. The disorder was the sweating sickness, characterized by its sudden onset, special eruption, and grave symptoms. The cases became so numerous that the two doctors on the island were unable to fulfill the requirements of the situation, and two naval surgeons were sent to assist. The disease spread all over the island. No medical man was attacked. The contagion seemed to emanate from the corpses; putrefaction set in very early. The coffins were made very badly, and the products of decomposition probably escaped and contaminated the clothes of those who carried the coffins to the cemeteries; hence the frequency of the disease among these. According to Magnel, the temperature is 105.8°, and 109.4° Fahr., but in this epidemic such high figures were not noticed. At the commencement it reached 102.2°, and remained at about 98.6° and 100.4°, while in the cases where the sweating was suppressed it reached 105.8° and 107.6°. The treatment consisted of ipecacuanha in doses of 20 grains. Refrigeration gave good results in some cases of high temperature.—*London Med. Record*.—*News and Abstract*.

LACTOPEPTINE.—This a most valuable preparation for use in all enteric troubles. Especially will it be found of service in impaired digestion and infantile diarrheas; easily administered, it aids digestion and assimilation of food. In fact it is a staple remedy.—*Lancet and Clinic*.

I.—2.—5.

ACTION OF GASES ON BACTERIA.—If the germ theory be accepted provisionally, then the manner in which these germs are affected by different substances becomes of special interest. In a paper recently read before the English Chemical Society, Mr. Hatton gave the results of some interesting experiments, made to determine the influence of gases on bacteria. The bacteria were obtained by shaking fresh meat with distilled water. The aqueous extract was filtered and then exposed to the air for twenty-four to thirty-six hours. The following simple method of applying the gases was adopted. A small flask was half filled with mercury, then filled with the bacteria solution and inverted. The gas employed was then passed into the flask by a glass tube until the mercury was nearly all expelled. A portion of the liquid was withdrawn every day and the condition of the bacteria examined. Air was the first gas tried. The experiment lasted fifteen days. The bacteria flourished during the entire time. The air lost a large quantity of oxygen, but this was not replaced by carbonic acid. An atmosphere of pure hydrogen for fourteen days had no effect on the bacteria exposed to it. Pure oxygen after ten days showed thirty per cent. of carbonic acid. A mixture of carbonic oxide and nitrogen was next tried for fourteen days. In these gases the bacteria flourished well. The carbonic oxide was nearly all converted into carbonic acid. The more poisonous gases were also tried. Cyanogen converted the solution into a black syrupy liquid. At the fifth day the bacteria had almost disappeared. On the twelfth day, however, they were nearly as numerous as ever. It appears that cyanogen is fatal to bacteria as long as it exists as cyanogen, but it is soon converted into ammoniacal oxalate, and then the bacteria re-appear. Experiments were also made with liquids containing salicylic acid, strychnine, morphine, narcotine and brucine. In all these solutions the bacteria flourished. On the other hand, carbolic acid, alcohol, and potassium permanganate were destructive to these organisms. On the whole, it appears from the foregoing that bacteria are endowed with unexpected vitality, and it may be inferred from this that other microscopic germs are also.—*Chicago Medical Review.*

THE PROGNOSTIC SIGNIFICANCE OF INTESTINAL HEMORRHAGE IN TYPHOID FEVER.—Dr. Hartzell, of Philadelphia, in an article contributed to the *American Journal of the Medical Sciences* for April, 1881, concludes that while hemorrhage from the bowels may seem to ameliorate the condition of the patient, this is not the rule, as Trousseau and other eminent authorities have taught; but, on the contrary, the symptom is to be looked upon as decidedly unfavorable, raising the mortality from 18 to 40 per cent. He finds that peritonitis is also much more likely to occur in cases where hemorrhage has appeared.

MAY IODIDE OF POTASSIUM EXCITE BRIGHT'S DISEASE?—In view of the very large doses which have been advised and are frequently administered in the treatment of syphilis, the question whether iodide of potassium may excite Bright's disease becomes one of considerable importance. In the *American Journal of the Medical Sciences* for July, 1881, Prof. I. Edmondson Atkinson, of the University of Maryland, calls attention to the large proportion of cases treated for advanced syphilis that present, after death, evidences of marked kidney disease; and, in this connection, to the fact that syphilitic renal disorder in its characteristic lesion, the gumma, is comparatively rare, while the forms the most frequently encountered are not in themselves syphilitic. In searching for a cause that might produce these changes quite independently of the syphilitic poison, Dr. Atkinson concludes that since iodide of potassium has decided diuretic action, and, as is known to clinical observers, may cause both albumen and casts to appear in the urine, the continuance of this remedy in some cases might lead to the changes observed. He therefore made a series of observations upon seventy cases of late syphilis, of which nineteen presented evidences of renal alterations more or less grave. The relation existing between the administration of iodide in these cases, and the appearance of mucous or hyaline casts and albuminuria, was quite evident; as in a number, the abnormal elements gradually disappeared after the cessation of the remedy. The condition appeared to be catarrhal in character, and the casts were the results of renal irritation. In no case, however, was extensive parenchymatous inflammation of the kidneys excited; but an obvious syphilitic disorder of the kidney in one case disappeared under the full and systematic use of the iodide. The author's conclusion is that while the evil effects of the iodide of potassium are small and for the most part transitory, the occurrence of more severe alterations is not impossible, nay is probable. To these evil effects some individuals are more susceptible than others.

FEEDING-BOTTLES.—It is impossible to enforce too strongly the paramount importance of keeping the feeding-bottles of infants perfectly clean and sweet; so we give the following from a paper lately presented to the French Academy of Science. Several infants' feeding-bottles in use at a creche in Paris, and having a fetid odor, were taken by Dr. M. Mesnil to the Municipal Laboratory for examination. M. Fauvel found that the milk remaining in all had a sickening smell, was acid, and half-coagulated; and on microscopic examination, the globules were deformed, and numerous very lively bacteria, along with some vibriones, were present. On cutting open the caoutchouc tube throughout its length coagulated milk with small organisms was met with; but a still more important fact was the presence in the nipple of a mass of vegetation of cryptogamic nature. Sown in whey, this devel-

oped considerably in a few days. A visitation of all the cresses was then arranged by the police and medical authorities, with the following result: Of thirty-one feeding-bottles examined in ten creches, twenty-eight contained in the nipple, the caoutchouc tube, and in some cases in the glass bottle, vegetations of the kind indicated, as well as bacteria, etc. Several that had been washed carefully, and were considered ready for use, still contained these cryptogams. Two feeding-bottles in a very bad state were found to contain pus and blood-corpuscles; the children who had used them had injuries in the cavity of the mouth. It is thus probable that saliva enters the feeding-bottle, and its ferments are added to those of milk. The acidity of the milk is attributed by M. Fauvel to the bacteria present. We do not suppose that there is anything new in all this, but the graphic description of the freely growing moulds, the very vivacious bacteria, and the more scarce vibriones that may be found in babies' feeding-bottles may impress the minds of mothers and nurses more than any common-phrased injunctions. It might, however, really be useful to publish pictures of the world found in a drop of sour milk from a dirty feeding-bottle, to be hung up in every nursery.

—*Medical Times and Gazette.*

BLOOD ENEMATA.—Dr. Sansom thus writes of the employment of blood in nourishing enemata: Ox blood is usually employed, but sheep's blood may be used. It is necessary that it be defibrinated the moment it is drawn. Butchers understand this process, and will supply what is called "whipped" or "stirred" blood. It is, of course, requisite that the blood be fresh—that it be not kept more than a single day. In urgent cases, where there is no stomach digestion, two or three ounces of blood may be injected into the rectum every two or three hours; the fluid may be warmed by placing the containing vessel in hot water, but it is often borne equally well when cold. For chronic cases, in which it supplements stomach alimentation, it is administered in quantities of from two to six ounces once or twice a day. In some cases it tends to promote constipation; in a very small percentage, the opposite condition of irritability.—*The Lancet.*

HOUSE-PLANTS IN PHTHISIS.—A writer in the *Medical Times* reports a case in which a large family died of consumption, one member after another, until only one was left. This one married a wife who loved house-plants, and kept them constantly in the bed and sitting room. This one escaped, *ergo*, the house-plants did the good work. Alas, if only one swallow could make a summer!

THE PAIN OF CANCER, when ulcerating, may be relieved by a lotion of one part of sulphate of atropia to one thousand parts of distilled water.

HOUSE DRAINAGE IN CHICAGO.—Some time ago the executive committee of the Citizens' Association, of Chicago, appointed a sub-committee to consider the subject of house drainage. After considerable investigation the committee embodied its ideas in a report, of which the following is a brief summary of the recommendations made:

1. Concrete the ground under the entire building.
2. Ventilate the main sewers by a perforated cover on every man-hole.
3. Every house to have a cast-iron soil pipe, not less than four inches in diameter, running from sewer to roof, without a trap, accessible for inspection throughout its entire length.
4. Every sink, wash basin, bath tub and water closet (except the "trap-less" closets) to be trapped.
5. Every trap to be ventilated from its highest point into a pipe running out above the roof, and disconnected from the soil pipe.
6. Joints in iron pipes to be leaded and caulked to rust joints. Joints between the iron and lead pipes to be made with tinned iron or brass ferrules, soldered.
7. Catch-basins to be built outside of the house wherever possible and ventilated by a special pipe.
8. Water-closets to connect with the outer air by a window or light shaft, and to have a ventilating flue.
9. Avoid pan closets, and use hopper or improved closets.
10. On the upper floor each water-closet to be flushed from a separate tank through a pipe not less than $1\frac{1}{4}$ inch in diameter.—*Van Nostrand's*.

TREATMENT OF TRICHINOSIS :—Rand (late Prof. of chemistry at Jefferson) recommends, in the *College and Clin. Record*,—on purely theoretical grounds, however—rapidly induced mercurial salivation. He expects in this way to kill the parasite before killing his patient.

FOR INFANTILE ECZEMA :—Unguenti picis, $\mathfrak{z}\mathfrak{j}$; zinci oxidi, $\mathfrak{z}\mathfrak{i}\mathfrak{j}$; unguenti aquæ rosæ, $\mathfrak{z}\mathfrak{i}\mathfrak{i}\mathfrak{j}$. M. Apply abundantly and thoroughly.—*L. Duncan Bulkley*.

ERGOT IN ACNE :—Dr. Denslow (*N. Y. Med. Jour.*) has found in ergot an admirable remedy for acne. His theory of its action is that by its effect on the unstripped muscular fibres of the skin, the latter is restored to a healthy condition. He gives it internally, in the usual doses.

OBSTETRICS.

SEVENTY per cent. of the labor cases of Cincinnati are delivered by midwives, for the most part very ignorant.

OVARIAN TUMOR TREATED BY INCISION AND DRAINAGE.—In the *New York Medical Journal* for June, Dr. T. Gaillard Thomas relates the case of a lady on whom two attempts had been made to extirpate a large ovarian tumor, which attempts were abandoned on account of the extensive adhesions encountered and the profuse hemorrhage that took place. The patient's health became very much depreciated, and on several occasions she passed into a state of collapse and was thought by her physician to be dying. She now entered Dr. Thomas' private hospital, where, after vain endeavors to improve her condition by great care and thorough drainage (a drainage tube having been inserted by the surgeon who first attempted the removal of the tumor, and the opening still persisting), Dr. Thomas cut directly down upon the tumor, and without opening the peritoneum, tried to enucleate it. There was so great hemorrhage, however, and the sac was so universally attached, that he gave it up and cut directly into the mass, when a large amount of colloid fluid escaped. Carrying his hand into it he found a large number of sacs, each of about the size of a cocoanut, filled with fluid, which he broke up. One existed almost outside of the large tumor, and it was into that that the India-rubber tube had been inserted by the physician, and pus withdrawn. He opened this thoroughly, exercising care that none of its contents should enter the peritoneum. Two glass drainage tubes were then inserted, one above and one below, in Douglass' cul-de-sac, through which carbolized water could be injected. The patient was placed upon the most nutritious diet, and injections of carbolized water were employed. The tumor diminished in size until it was no larger than the head of a child at birth, and one month after the operation she left the hospital, with instructions to keep up the injections of carbolized water. A month later she appeared to be perfectly well, a cyst the size of a goose's egg still remaining, which was drained with perfect ease.

CHLORAL IN LABOR.—The profession seems to be awakening to the fact that in chloral we have a means of allaying the sometimes very and always annoying pains of the first stage of labor; at the same time that the os is rendered more dilatable and the efficiency of the uterine contractions increased. Dr. Bribach, of the St. Louis Female Hospital, adds his experience to that of Dr. Kane and others, previously reported in the *American Journal of Obstetrics* and other journals. Dr. Bribach places most stress upon the effect to overcome the rigidity of the os. He says that this result may be confidently looked for in all cases which have been fully brought under its influence. In repeated instances he found an os which had remained small, rigid, and almost cartilaginous, become flaccid and freely dilatable half an hour after the administration of thirty grains of chloral, and but few cases will fail to yield in two hours. In very intractable cases, he recommends

the addition of an enema to remove any fecal matter which may be in the lower bowel. He says of the effect on the pains: "The teasing, wearing sensation in the interval between the pains, with its sufferings and the lamentations of the patient, subside, giving way to a state of peaceful somnolence." The patient is aroused during the pains, but seems to suffer less; and it seems to all appearances that the parturient process is suspended, but the digital examinations show the uterine contractions to have increased in efficiency, from the protrusion of the amnion, and rapidity of progress in the first stage. He denies that an effect can be discovered upon the fetus, even in administration of very large doses, Dr. Schenck, in an article previously published in the same journal, says: "The profession could do much if they would bear in mind that chloral, in the early stage of labor, is as necessary as they generally think ergot is in the latter stages." In this same number (May) of the journal is an editorial on the same subject, referring to Dr. Kane's researches and endorsing the method. Dr. Kane recommends that the administration be *per enema* when practicable, and the first dose be thirty grains, followed by fifteen grains every hour. He formulates the following propositions: (1) Chloral may be employed in normal labor for the purpose of blunting sensibility, quieting nervous and hysterical manifestations, shortening labor, and destroying pains. (2) In complicated labor it has three uses, i. e., (a) to relieve pains; (b) to hasten dilatation of the os uteri; and (c) to increase the force of the uterine contractions. (3) Even when pushed to the production of anesthesia it does not destroy the force of the uterine contractions. (4) The alleged danger of post-partum hemorrhage has no foundation in fact. (5) In moderate doses it is never dangerous. (6) The slight delirium that sometimes occurs is ordinarily removed by the second dose and need cause no alarm. (7) It is rarely necessary to use more than one drachm in any one confinement. (8) It is best given by the rectum, in the form of enemata or suppositories. Almost all the practitioners who have communicated with Dr. Kane, favor the use of chloral in labor, for relief of suffering. A few failed to derive any benefit and do not use it.—*Detroit Lancet*.

SALICYLIC ACID IN THE TREATMENT OF CERVICAL ENDOMETRITIS.—Mix salicylic acid and vaseline to the consistence of a thick paste; apply it liberally over a small sponge tent, about an inch long, and insert it into the cervical canal, after having removed the tenaceous mucus. Let the tent remain about twelve hours. The application should be repeated about twice a week, until the inflammation has subsided, which will not usually require many applications. If there is an abrasion or granular degeneration around the external os, also apply the dry salicylic acid to the part. A pledget of cotton wool, saturated in glycerine, should be placed over the whole.—*Virginia Med. Monthly*.

THE TRICHINOSIS CRASE.—The *Medical Press and Circular*, in commenting upon a recent paper by M. Davaine, before the Paris Academy, says that as M. Davaine proceeded with the reading of his paper the brows of the members seemed to clear, their faces to become more serene. In language in which humor was combined with scientific rigor, the honorable academicien declared there was more danger while walking through the streets of Paris of a chimney falling on one's head than of contracting trichinosis by eating pork of French origin. As to American-cured hams, cooking them in the French manner destroys the trichinæ, if present, and thus renders harmless infected hams. It is quite unnecessary, therefore, to form a corps of inspectors, and send them, armed with microscopes, to repel the invasion of so benign and so little to be dreaded foe.

The question of trichinæ and trichinosis appears then to have been solved, and a decision given contrary to that expressed by the pessimists in the previous meeting of the Academy. The absurd part of the affair is that this favorable, if not optimistic, opinion is pronounced immediately after a ministerial decree (which adopts the opinions of the pessimists) has been promulgated absolutely prohibiting the importation of American pork. Almost at the moment when a member of the Academy, one of those whose opinion carries most weight, declares the American-cured pork to be innocuous, a decree is promulgated interdicting it.

FOR A DINNER-PILL.—(Fothergill, in *London Practitioner*.) Ipecacuanha form a portion of a good old-fashioned dinner-pill; and betwixt its direct action upon the gastric mucous membrane and its action on the liver as an hepatic stimulant, it must come into use again before long. A dinner-pill of

Pulv. ipecacuan.	gr. j
Strychniæ	gr. 1-20
Ol. pip. nig.	m ij
Pil. al. et myrrh	gr. ijss,

every day, will often produce excellent effects. Then arsenic may be taken, as three drops of Fowler's solution after dinner, or in the above pill, substituting the same dose of arsenic for the strychnine.—*Can. Jour. Med. Sci.*

PERITONEAL TRANSFUSION OF BLOOD.—The transfusion of blood into the peritoneal cavity, recommended by Ponfich, and supported by the experiments of Bizzozero and Golgi, has been recently practiced in Italy with much success. The case is reported in the *Annali di Ostetricia*. The patient, who was moribund from hemorrhage after parturition, was transfused with seven ounces of defibrinated blood taken from a man by venesection, and injected into the peritoneal cavity. There was no reaction, and the patient made an excellent recovery.—*Brit. Med. Jour.*

REVIEWS AND BOOK NOTICES.

Prices are always inserted when furnished by the publisher, or when obtainable from the bookseller.

Transactions of the Medical Society of the State of New York, for the year 1880.

The President's address is a good one, dealing in generalities, however, and of no scientific value.

Dr. Stevens, of Albany, advances the claim that, "Functional nervous diseases are, beyond any and all other causes combined, dependent on anomalous conditions of the refraction or the accommodation of the eyes, or upon imperfect action of the muscles of these organs." A number of cases are cited, but there is no doubt that the doctor bases a sweeping conclusion on too small a number of cases.

Alexander Hutchins, of Brooklyn, thinks that very many exhausting diseases are continued from lack of nourishment. He believes in *forcing* such chronic cases to eat, whether they crave food at all or not. He commences early in the morning, before the patient is out of bed, and keeps up the process for eighteen hours. Prefers solid food, usually, and that without any very decided taste. Water must also be given freely.

Dr. W. W. Potter, of Batavia, reports four cases in which resort was had to rectal alimentation: one for dysphagia due to ulcerative pharyngitis, one for vomiting of pregnancy, one for catarrh of the stomach, and one for cancer of liver and stomach. He uses beef essence, meat broths, milk, whipped cream, raw eggs, etc. He speaks highly of injections of desiccated blood, though he has never used them himself. He thinks digestion and absorption of the substances injected take place in the small intestines, the food being taken there by anti-peristaltic action. In the discussion of the paper, a number of the members expressed themselves as having met with success in using the injections of defibrinated blood.

Dr. Webster, of New York, reports a case in which a splinter of wood, $\frac{1}{2}$ in. long, remained imbedded in the cornea for six months, without producing any alarming symptoms or permanent injury.

Dr. Bull, also of New York, reports four cases of foreign body in the eye, with methods employed for their removal, while Dr. Prout, of Brooklyn, reports one case of the same nature. The latter surgeon also has a paper on Lachrymal Conjunctivitis. He adopts the following method of operating on the lower canaliculus: The lid is drawn downward and outward as fully as possible, the probe-point of the knife is introduced perpendicularly into the punctum with *the cutting edge of the knife turned towards the ball*; when the

knife takes the horizontal position the edge is turned *still more towards the inferior cul-de-sac*, and in this position is pushed along the canal as far as desired, and is made to cut out by moving the handle in an inward slightly upward direction. The result is a curved incision, the convexity of which is directed backward, and which presents its canal to the lacus lacrymalis. The advantages of the method are that the tears are well carried off, the wound is hidden behind the margin of the lid, it serves well for probing, and has, perhaps in consequence of the free movement of one lip upon the other, less tendency to unite than the ordinary incision made with the "sharp edge of the knife upwards."

Caries of the Ankle in Children, is the title of a paper by Gibney, of New York. The paper is based on the study of thirty cases, treated *expectantly*. He draws the following conclusions:

1. Many children annually undergo amputation of the foot for caries of the ankle, when, by conservatism and a proper amount of respect for the *vis medicatrix nature*, the member could be saved, the child be spared the mortification of being thus hopelessly maimed, and surgery itself be ennobled.

2. Excision as a rule is not attended with as good results in children as authorities have led us to expect; and is *rarely ever justifiable*.

3. Partial excisions, the passage of tents through the joint, and other operative procedures offer no advantages over the expectant plan.

4. Nature herself, unaided by art, gets useful limbs, but as a rule, ankyloses varying in degree and deformity more or less marked.

5. The expectant plan of treatment, fully carried out, assures us of more results that are perfect, and more limbs that are useful without the aid of support, than does any other plan known to the profession.

Dr. Squire, of Elmira, reports a fatal case of cerebral thrombosis.

The titles of other papers are: Physiology of opium poisoning; Endemic Pleuro-Pneumonia; Tapping the abdomen; Cystorrhagia from Retentions of Urine; Evil Consequences of Colds in the Head; Refracture for Correction of Deformity; Infactile Eczema; Deformity from a Broken Nose; Hyoscyamia in Insanity; Thomas Kieth and Ovariectomy; Deformities of Fingers and Toes; Empyema Treated by Valvular Drainage; "Galloping Syphilis;" Use of Mercurials in Congestion and Sub-acute Inflammation of the Stomach; Marsden's Treatment of Cancer;* *Veratrum Viride* in Pneumonia and Rheumatism; Case of Diaphragmatic Hernia; Report on Hygiene; and several of minor importance.

Of course there is a report on "Sayre's Jacket," with the old familiar cuts.

Dr. Moore, of Rochester, has a paper relating to his peculiar method of treating Colles' Fracture with a luxation of the ulna. The method is proba-

* By a paste composed of two parts of arsenious acid and one part of mucilage of gum acacia.

bly a good one, and yields excellent results; but it is altogether too simple and inconspicuous to succeed—with the profession.

Dr. Geo. F. Shrady reports a rare case, in which he had complete reproduction of the humerus, after excision for acute necrosis.

Typhlitis and Perityphlitis, with cases, are the subjects of papers by Dr. Vanderveer and Dr. Wey. The latter tabulates 60 cases of perityphlitis with operation.

The *Transactions* form a good sized volume, and the papers are, most of them, of value. The Society is a delegate body, and seems to be in a flourishing condition.

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COTT & HANN, Publishers, Columbus, Ohio.

THE PRESIDENT'S WOUND.

From the official reports, which have been unusually barren and unsatisfactory, we learn that the bullet, nearly half an inch in diameter, penetrated (?) the tenth intercostal space, on the right side, three inches and one-half from the spine. There was at first some shock, and, upon the supposition that the liver had necessarily been wounded, death was regarded as imminent. In the course of a few hours the symptoms of shock passed off, and his symptoms since then have been only those of a flesh wound: There has been no evidence of a wound of the liver or of peritonitis.

The pain in his feet, from which he has been represented as having suffered so much for a time, has not been satisfactorily explained. One would naturally regard it as indicative of an injury of the cord, but there have been no other corroborative symptoms to sustain this idea. If the bullet were deflected downwards, as some have supposed, so as to wound the lower plexuses, the pain should have been accompanied by some paralysis. That

the pain was "reflex," is, perhaps, as satisfactory an explanation as any that has been offered. It at least gives a name to the trouble, and that is a great deal; especially when it is a name so deliciously vague and comprehensive.

Bullets are so easily deflected, and reach such odd places by such unheard-of routes, that one can only conjecture where this bullet now lies. It has been traced to the ribs, tenth and eleventh, both of which it splintered. Beyond that point, no one knows; and perhaps will not until the death of the President—which God grant may be many years hence.

The treatment has been that of masterly inactivity. *The doctors did not probe the wound.* They did not know what to do, so did nothing; which is very unusual—for doctors.

The chief doctor in charge seems to be a Dr. Bliss; better known as "Cundurango Bliss." Drs. Barnes and Woodward, while eminent medical men, are not, we understand, engaged at all in active practice, and hence can hardly be regarded as the best possible attendants. Dr. Reyburn is a stranger. Had the consulting surgeons—Agnew and Hamilton—arranged so that one or the other could have remained with him constantly, the profession would have breathed easier. In truth, Mr. Garfield does not seem to have been especially happy, since he has been at Washington, in the choice of medical advisers for himself or family; at least he has not employed those in whom the profession at large have confidence, except the consulting surgeons. That the treatment, in his own case, seems to be proving successful, does not militate against this statement, since any sensible old woman would have adopted the same.

As to Guiteau, there is no doubt, in our own mind, as to his insanity. One uncle and two cousins have been insane; as a youth he was ill-balanced, irritable, full of vagaries; later, he became subject to extravagant delusions, and, at one time, attempted to kill his sister, almost unprovoked. Of late, disappointed in seeking office, his weak brain turned by the Washington-Albany struggle, he became the subject of a fixed delusion that God had ordained him to kill the President. It was simply a case of delusional insanity: of so common a character that, but for the prominence of the victim, it would have received but a passing notice in the papers.

He being insane, it is, of course, eminently improper to speak of inflicting upon him any punishment whatever. For the protection of the people, he should simply be placed in the back wards of some insane asylum and there end his days. Such a termination would be so far removed from the glorious, or tragic, or martyr-like, as to act more or less largely as a restraining influence upon other visionary, demented, delusion-possessed individuals.

Guiteau's act teaches a deeper lesson, but one which the people are not yet ready to learn: that all lunatics should be placed in proper receptacles

for safe keeping. No one can foretell, in any case, when the apparently harmless lunatic may become dangerous. He may never become so, or he may become so to-morrow. Society cannot afford to take the risk.

The *Michigan Medical News* thinks the surgeons in charge "were direlict in not incising the superimposed tissues to a sufficient extent to enable them to satisfy themselves that the peritoneum had actually been invaded."

We cannot agree with this criticism. Such an excision would, perhaps, have enabled them to gratify their curiosity, and the curiosity of the people in general, but it would not have increased the President's chances of recovery, and might seriously have diminished them. That the attending and consulting surgeons unanimously decided against any such procedure, ought to silence all cavil.

We hope that the course of rigid non-interference, adopted in this case, will serve to forever impress upon the mind of the profession the doctrine that penetrating wounds, or supposed penetrating wounds, of the great cavities are not to be probed, unless the indications for probing are definite, absolute and unquestionable.

DR. F. D. WEISSE, Professor of Anatomy in the New York University, has been making a number of experiments and dissections, to ascertain the penetrating power, etc., of the weapon used by Guiteau. In an exceedingly ingenious and carefully prepared article, in the *Medical Record*, he advances the following hypothesis: The bullet, after striking and splintering the ribs, was deflected downwards, forwards, and inwards; pierced the sub-pleural portion of the diaphragm (perhaps); passed along the anterior surface of the transversalis fascia, behind the kidney, through the posterior part of the iliac fossa, until it reached the psoas magnus; perforated this muscle, or passed behind it, and reached the sacral plexus, one, or more, of the trunks of which it wounded. The result of the incision just made by Drs. Agnew and Hamilton, three inches below the original wound, would seem to confirm, to a certain extent at least, this theory.

Still, Dr. Bliss thinks the liver was penetrated, and that the ball is now lodged in the anterior wall of the abdomen.

INTESTINAL OBSTRUCTION.—Dr. J. U. Blose, of Pennsylvania, reports to us the particulars of a case of intestinal obstruction, of over a week's duration, in which relief was finally obtained by a copious injection of an infusion of senna and a solution of sulphate of magnesia, administered with the patient in the knee-elbow position. The obstruction was in the small intestine.

*MEDICAL DEPARTMENT OF THE WESTERN RESERVE
UNIVERSITY, OF CLEVELAND, 'O.*

A new medical college has entered the field.—One, however, that does not add to the already too great number but, strange to say, diminishes it. The Medical Department of Western Reserve University is the result of the union of the Cleveland Medical College and the Medical Department of Wooster University. Each of these institutions already had the prestige that time and success bring. Their combined class last year was 260 students, and their graduates numbered eighty. The gentlemen of the new faculty think that the new college will carry the combined influence of the old ones. The alumni of the two old colleges include over 1500 doctors in medicine, who were graduated at fifty-five commencements.

The present faculty numbers sixteen professors, and was chosen by the two old faculties. It includes the following gentlemen as professors: Gustav C. E. Weber, LL. D., M. D., Professor of Principles of Surgery and Clinical Surgery; H. K. Cushing, M. D., Professor of Gynecology; W. J. Scott, A. M., M. D., Dean and Professor of Clinical Medicine; J. Bennett, M. D., Professor of Practice of Medicine and Clinical Medicine; H. J. Herrick, A. M., M. D., Professor of General Pathology, Hygiene and State Medicine; J. Laisy, M. D., Professor of Osteology; D. B. Smith, M. D., Professor of Diseases of the Eye and Ear; J. E. Darby, A. M., M. D., Professor of Materia Medica and Therapeutics; E. W. Morley, A. M., Professor of Chemistry; I. N. Himes, M. D., Registrar and Professor of Pathology; H. W. Kitchen, M. D., Professor of Anatomy; T. Clark Miller, M. D., Professor of Obstetrics and Diseases of Children; John W. Lowman, A. M., M. D., Secretary and Professor of Materia Medica and Therapeutics; H. H. Powell, M. D., Librarian, and Professor of Obstetrics and Diseases of Children; C. B. Parker, A. M., M. D., M. R. C. S., Professor of Physiology.

It may be of interest to record the manner in which the consolidation was effected. Propositions from one faculty and the other had been sent to and fro for several months, until, as a final matter, the Faculty of the Medical Department of Wooster University advanced the following propositions as a basis for union. After first rejecting them, the Cleveland Medical College received them favorably, and the two organizations proceeded to act upon them July second. The propositions were as follows:

Whereas, We believe that the interest of medical education would be much enhanced by a just and fair union of the two medical colleges, therefore

Resolved, That we suggest the following terms as a basis for the joint consideration, by the two faculties, of the idea of consolidation.

First. That twelve members from each faculty be chosen by the respective faculties to select a new faculty for the united medical college.

Second. That each one of these twenty-four shall have one vote either in

person or by proxy in the selection of a new faculty, and in its organization.

Third. That all voting be done by ballot and according to parliamentary law.

Fourth. That an equal number of men from each faculty have a place in the new faculty.

Fifth. That no man shall become a member of the new faculty, unless he shall have received votes equal in number to a majority of the total number from the two faculties entitled to a vote.

Sixth. That after the new faculty is selected, no new member shall be added to this faculty unless he receive a two-thirds vote of this new faculty.

Seventh. The number of members in the new faculty shall be determined at the joint meeting of the representatives of the two faculties.

Eighth. That the name of the new medical college shall be determined by the faculty.

Ninth. That each graduate of the two schools receive an ad-eundem degree from the new college.

The Hon. F. J. Dickman, a prominent lawyer in Cleveland, presided at the joint meeting, which proved to be most harmonious and successful.

There will be close co-operation between all the new institutions of learning now rising in Cleveland, viz.: The Adelbert College of Arts; lately so richly endowed by Mr. Amasa Stone, and the Case School of applied Science. It is believed that the departments of Chemistry, Physics, Botany, Microscopy and Physical Sciences generally, in the Case School and the Adelbert, will be opened to matriculants of the Medical College and afford opportunities for study that are usually absent in purely medical colleges. The new Medical College is, unfortunately, unendowed. It has, however, a provisional gift of \$20,000, and an effort is now making to increase this. The physicians and surgeons of Cleveland seem determined that their department of medicine shall not be behind other departments of education.

ANESTHETICS IN LABOR.—A correspondent questions the statement of the reviewer of the Illinois *Transactions*, in our former issue, that deaths *have* occurred from the use of anesthetics in labor. That statement was based, first, on general principles; that there is no physiological reason for any special immunity in these cases: second, on facts; that Turnbull, in the second edition of his *Manual of Anesthesia*, 1879, gives a table of 160 "deaths from chloroform from 1869 to 1879," *three* of which occurred in "parturition." If Turnbull is in error, our reviewer will yield—at least temporarily.

THE CATHETER INSTEAD OF TRACHEOTOMY.—From various quarters the recommendation comes to use a medium sized (No. 12) gum-elastic catheter, in cases of threatened suffocation in croup or edema of the glottis, instead of resorting to tracheotomy. Its introduction is followed by some spasmodic efforts to expel it, but these subside and the breathing becomes tranquil.

A QUEER WAY OF PAYING A DOCTOR.—Mrs. Ann Eliza Jones, of Belmont County, having become tired of life, but feeling duly grateful to her physician, Dr. John Cook, of Bridgeport, determined to tender him her lifeless body in lieu of his bill for professional services. Before closing the bargain, she inquired of the Doctor what a body would be worth for dissection. He answered that a good, fresh corpse would be valued at about \$25. She then made the offer to give him her body in payment of his bill of \$17, to which he replied "all right,"—regarding the matter as a joke, and in this spirit referred her to a lawyer to draw up the necessary papers. She acted promptly upon his advice, for the next evening she appeared at the Doctor's office with the necessary legal instrument, properly witnessed and acknowledged.

The next morning the lifeless body of Ann Eliza Jones was found dangling from a clothes-prop in the back yard of the premises on which she had resided. A coroner's jury was next in order, before which the facts above recited were made known. Dr. Cook had the old lady decently buried, but a few days thereafter he received an offer of \$25 for the subject from the West Virginia University.

CORRECTION.—In Dr. J. C. Kennedy's article on Insanity, page 50, fourth paragraph, first and fifth lines, for *apparent* read *afferent*.

By an oversight, the name of Dr. Jas. E. Reeves was omitted from our first number, as editor of the West Virginia Department.

THOSE of our Ohio subscribers who last month failed to get the supplement containing the old, and proposed, Constitution, will receive it with this issue.

It is proposed to discuss the matter, *pro* and *con*, in the JOURNAL, in ample time for the members to become prepared to act intelligently.

EVERY member of the State Medical Society, not in arrears for dues, is entitled to a copy of the JOURNAL for one year without extra expense. If any one fails to get his copy, let him inform the publishers of the fact, at once.

JUST as we go to press, we are in receipt of a report of a very interesting case of hysteria, with its treatment, as presented to the Montgomery County Medical Society, by Dr. J. C. Reeve, of Dayton. It will appear in the next issue.

THE *Ohio State Journal of Dental Science*, edited by Geo. Watt, M. D., D. D. S., of Xenia, and published at Toledo (Ransom and Randolph), is one of the neatest journals coming to our office.

THE OHIO MEDICAL JOURNAL.

Vol. I.

SEPTEMBER, 1881.

No. 3.

COMMUNICATIONS.

REPORT ON SANITARY SCIENCE.

BY D. N. KINSMAN, M. D., COLUMBUS, O.

Prof. of Practice of Medicine, Columbus Medical College.

Read before the Ohio State Medical Society, June 16, 1881.

We can treat this subject only in a general way, from the lack of proper statistical material and want of knowledge of the number as well as the causes of the deaths in Ohio. The State provides for the collection of vital, among other statistics, by the assessors; yet so little is the value of this work appreciated, and so little attention bestowed upon it, that the returns give intrinsic evidence of their gross imperfection.

The gross mortality, compared with the total population, will give the death ratio; but when the causes of the deaths, resting on an accurate diagnosis, can be shown, then the information becomes of the very highest value in considering any topic in state medicine. The comparison of the mortality tables with the soils, water supplies, thermometric and barometric readings, food, dwellings, and occupations of a community, will enable us to determine very largely the etiology of their diseases. The education, and social and religious customs of people, enter into the problem of the value of life in any given population. The mortality of children under one year, is many *per cent.* greater among those whose parents cannot read and write, than among those whose parents have this qualification even in its most rudimentary degree.

The "sweating sickness," which scourged England so severely in the XIVth century, is believed to have depended upon the location of men's dwellings. The Black Death had over spread Europe during the middle of the century. The impotence of medicine had turned the attention of the people to their religious duties. Lent and all other religious fasts were observed with the greatest rigor. In order easily to obtain fish, men placed their habitations in the lowlands by the lakes and rivers. These became contaminated with the filth of the people. The water used for drinking poisoned, and the vapors rising from the foul streams mingling with the air contaminated their blood, until their enfeebled bodies again became a prey to pestilence.

Cholera epidemics of the present times, furnish us with other examples of the influence of religious fanaticism in the destruction of human life. As regularly as the devotees of India complete the round of weariness, privation, exposure and license, of their pilgrimages to the sacred waters, so regularly is there an outbreak of cholera, which by the force of its initial impulse has sometimes overspread the world.

The epidemics which desolated the earth during the ancient and middle ages, have been met and conquered. No less a work remains for us to do. Less obviously, but none the less certainly, are we losing yearly thousands upon thousands of lives from causes which can be controlled by proper sanitary measures.

Economics of Death and Disease.—The wealth of a state depends upon the number of citizens of mature age who are engaged in productive labor. The producing period of human life is comprised between the ages of 20 and 65 years. The loss of producing lives impairs the income of the state. By calculating the average expectation of human life at the various ages, when life is terminated, the loss may be ascertained. By this method, reckoning only fifty *per cent.* of the lives lost, as producing, according to the report of 1880 there were lost in Ohio, on lives between the ages of 20 and 65, 123,931 years. If the income from the labor of each life so terminated was worth one hundred dollars annually, the loss to the state was, for 1880, \$12,393,100, on productive lives. Lives terminated during their immaturity, or previous to their becoming productive, dissipate the wealth of the state by causing the loss of investment made for their care and protection. This money has been paid from the estates of their parents or legal guardians. According to English estimates, the cost of maintaining a child during its first year is fifty dollars, and at the twentieth year the cost has reached one thousand dollars. Taking the statistics of Ohio for 1880 as our basis, we find there was lost to the state, on immature lives, \$3,416,000. The total of these two items is \$15,745,100, exclusive of other necessary expenses attendant upon sickness and death.

The experience of mutual benefit societies in England, shows that for every death which occurs two persons are constantly sick. In other words, each death represents 730 days of sickness. It has been estimated that one in every twenty-eight who are sick, dies. In 1879 there were 27,178 deaths reported, which is equivalent to the loss, according to English experience, of 56,358 years, from sickness. Or, according to the American estimate, during 1879 there were sick in Ohio 789,012 persons. We find in Ohio, for 1880, there was an average of 6.5 days sickness for every person. The European estimate is 19 or 20 days per person. This discrepancy I explain on the ground of imperfection of our data.

In this way we may approximate the economic importance of Disease and Death to the State, annually.

The proportion of births among the native population is less than among the foreign population.

General Mortality.—The general mortality of males from one year to twenty-five years of age is 52.3 *per cent.* of the total; that of females 47.3 *per cent.*; from twenty-five to forty-five years of age, the numbers for males and females are exactly reversed. The mortality of the United States in 1870, was 12.5 per 1000; in 1880, it will reach 18 per 1,000, as shown by the census reports of that year. The mortality reported for Ohio for several years has averaged 8.5 per 1,000, which shows the imperfection of our tables.

Bond estimates that of every thousand children born, 900 should be alive at the end of the first year. The English estimate is that 852 should be alive. In Ohio, of every thousand born, only 800 are alive at the close of the first year.

Prevention of Diseases.—"The number of lives lost in the United States from causes clearly preventable, is certainly over 100,000, yearly. In addition to these unnecessary deaths, there are probably constantly sick in the United States from causes which are preventable, 151,000 persons. The producing efficiency of the average life in this country, falls short of the normal by at least fifty *per cent.*—(Ziemssen's Cyclopedia, Vol. XVIII, p. 5, *et seq.*)

It is only when we go into the study of figures that we can appreciate the influence of disease upon a community. We must keep in mind that the diseases which afflict humanity are not matters of chance. They are dependant upon a concurrence of conditions known as etiological factors. These factors are two-fold: internal and external, to the sick. Remove either, and the possibility of disease is at an end. In respect to the patient we have to consider organization, constitution and general condition of the body. The stronger the body is, the more certainly it can strive against the general causes of disease. A robust body gives, however, no immunity against

special causes of disease. The special causes comprise the viruses and contagions. These all have their course when once they gain entrance to the body in spite of its condition.

But it has been further learned that these specific contagions have their peculiar modes of evolution and propagation :

1. In one class, the contagion is found in the human body alone, and can act immediately on another unprotected human body.
2. In another class the contagion is found in the human body, but as it escapes from the body it is harmless, and only becomes active after a more or less prolonged sojourn outside of the body under favorable circumstances.
3. And yet another class of diseases arises from infecting matter which is produced external to the body, and by its reception becomes the factor of disease.

The recognition of these modes of evolution and propagation of disease, has enabled physicians to say that diseases are of two general classes, preventable and non-preventable. The more diseases have been studied, the larger has the first class become, and there is no doubt that many diseases whose causes are yet unrecognized, will, in time, give up their etiological secret and become subject to hygienic precautions.

State medicine can indicate to the executive branch of a government what is necessary to save life and protect health, but when it is left to the option of any people, prejudice or superstition on the part of a few may cause such a neglect of measures of common safety as seriously to threaten the safety of the majority. This is notable in the case of small pox. Vaccination, thoroughly performed and repeated, till susceptibility to its action is extinguished, will, I have no doubt, protect from small pox, and yet 255 persons died from this disease in Ohio in 1877, a mortality of nearly one per cent. Certainly if we legislate against petty larceny, and other crimes against persons, much more should legislation be had on the subject of vaccination, which, we believe, will save the annual loss of life from small pox in Ohio, and the United States. As to measles and scarlet fever, we know their ravages can be stayed by isolation of the patients and systematic disinfection. These diseases give no evidence of arising *de novo*. The germ must fall on a favorable soil for its development. Restrict the action of the germ by isolation and destruction and the disease will cease. On the Faroe Islands there were no cases of measles from 1781 to 1849. Then the poison of the measles was carried to the island, and all but 1,500 of a population of 7,782 took the disease, which only ceased when the material on which it could thrive was exhausted.

There is a fatalistic notion which has taken root in the minds of parents, that there are certain classes of affections known as "children's diseases," which all must suffer unless they have a natural immunity. This was the

feeling in the eighteenth century in regard to small pox, and then, as now, the effort was not so much to avoid infection as to select a favorable season. This is a false philosophy, which must be rooted out of the minds of the people. Let them understand that there are no favorable times for sickness, and then, and not until then, will scarlet fever and diseases of its class, cease to send their hecatombs to death every year. Under the same head we may place diphtheria, whose causes are yet but little known. One thing we know, it is contagious, and the kiss of affection upon the lips of the infected one, has planted the seeds of death in the loving parent or child. The death of Princess Alice, of the royal family of England, is a melancholy instance in point. Her infection was derived from her child, who had been sick of diphtheria. Dr. E. M. Snow says: "It is certain diphtheria is a filth disease, and usually spreads from the influence or effects of foul air arising from localized filth. The contagion of diphtheria never produced any extensive prevalence of the disease without the presence and aid of this local filth." A mortality of 1469 is due to this cause in Ohio in 1877. How shall we reach the people to tell them of their peril from filth?

In their experience with the second class of diseases, physicians have won their greatest victories, not in healing, but in the prevention of diseases. In the second class we place typhoid fever, cholera and yellow fever.

Typhoid fever is subject, to a large extent, to sanitary measures. The physician who allows it to spread unchecked, without any effort to ascertain its cause or stay its course, is guilty of a breach of confidence, and is unworthy of his calling. The causes can, in the greatest number of cases, be discovered, and when discovered they can be destroyed. Filth is the parent, or foster-parent, of a large class of diseases. Remove filth and you remove the soil on which disease germs thrive. We have known scarlatina and typhoid fever to follow the milkman's cart. The germs of these diseases had found their way to the milk, by its exposure to the poison-laden air, or the water used to clean the cans, or for a less justifiable purpose, had contaminated it.

It is left for every community to choose between cleanliness and health, and dirt and disease. Says a leading journal, "Death dances merrily in dirty streets. By an inexorable law of nature, every great city is called to choose between the street sweeper and the sexton. Even as a matter of economy the sweeper is distinctly preferable, for you can buy many brooms with the price of a single coffin." And this is as applicable to our rural districts as to our cities. Less is to be apprehended from sewer gas and crowd-poisoning in the country, but the danger from poisoned water is greater than in any city which has well-regulated water works. It is a fact that in Ohio typhoid fever prevails more extensively among our rural population, in proportion, than in our larger cities. This is to be attributed to the want of

sewerage in the smaller towns, and the consequent contamination of water supplies from the proximity of privy vaults and surface privies, and surface water. The distance at which wells may be contaminated, by leeching through the soil, is remarkable. One case is reported in which it was caused at the distance of four hundred feet. Every well is a pit which drains an inverted cone of earth, of varying size, according to the nature of the soil in which it is dug. In the country alone, with one exception, in my professional experience, have I seen typhoid fever spread by attacking in succession the various members of the family. In 1867, typhoid fever broke out at the Ohio State Reform School. Among two hundred and twenty-five boys, fifty-two cases of the fever occurred. I fully believe the disease was brought thither by a newly committed boy, who soon became sick. The only spring in use was so situated as to be easily contaminated by surface water flowing from a surface privy which was cleaned periodically. A sudden violent summer shower arose, which swept the matter of the privy into the spring. Soon after the fever broke out in every family on the farm, spreading from the case before mentioned. There were two sources from whence water was procured; the spring already mentioned, and rain-water cisterns. But one of the officers' families suffered, and this immunity I attribute to the use of the cistern-water by the officers, while the boys used that of the spring.

In our larger cities, the erection of water works and the abandonment of wells, has been followed by a notable diminution of typhoid fever. Especially has this been the case in Columbus.

There are no obvious signs by which we can tell whether water is impure and dangerous to life. It may be clear and cool, and sparkle more than the purest spring, and yet carry in every draught the germs of deathly power. As an evidence of this statement, I cite the following cases from Prof. Lord, of the Ohio State University:

Well No. 1. Water cool, clear and sparkling. Standing in limestone. No impurity perceptible. Water, however, on standing, showed the presence of foul smell. On analysis, showed 4.4 per 1,000 of sewage pollution. Five cases of typhoid fever were traced to this well.

Well No. 2. In all respects, as to water and situation, similar to No. 1. The husband in the family died of the fever during the year. Analysis showed sewage pollution.

Well No. 3. Showed 1.8 per 1,000 of fresh sewage pollution. This well stood in such a situation as to show there was a stream of water running through it, and the contamination was fresh. Two cases of fever were traced to this well.

Well No. 4. Water found pure. Two persons, however, who habitually used this water, were employed to labor in such a locality that they were obliged to use the water of No. 3, and they took the fever.

I could give many cases in which I am morally certain that impure water has been the cause of fever outbreaks, in otherwise salubrious situations. In these cases, although no sufficient analysis was made, the use of potassic permanganate showed the presence of organic matter, which is sufficient to condemn any water for potable use.

In 1879 there were reported 921 deaths from typhoid fever in Ohio. The total number of cases may be fairly set down at not less than six thousand. If the duration of each case, during which the constant care of a nurse was necessary, was forty days, the loss of time from this disease would be 1317 years; the equivalent of the life work of forty men: not to take into account the expenses of medical attendance. The prevention of this waste of human effort is the work of sanitary science.

As an illustration of the greater mortality from typhoid in the rural districts, I present the following tables, premising that by far the larger part of the population of the counties named is in the city which is located in each of their boundaries: Typhoid fever caused, according to the State reports, 4.1 *per cent.* of the total mortality for 1880.

COUNTY.	Population.	City.	Population.	Rate of Mortality.
Cuyahoga	196,937	Cleveland	160,142	3.1
Hamilton	313,345	Cincinnati	255,708	1.7
Franklin	86,816	Columbus	51,665	3.7
Montgomery	75,545	Dayton	38,677	1.5
Lucas	67,388	Toledo	50,143	4.3

An average of 2.8 of the mortality from typhoid fever, in the five counties having the largest population of any counties in the State, as against 4.1 *per cent.* for the State at large. I entertain no doubt that if in these counties the country dwellers could be separated from the city dwellers, the comparison would be still more in favor of those dwelling in the cities. These figures show in a striking manner how our country people sacrifice the advantages which they naturally possess, by their salubrious situations, by allowing filth to accumulate around their dwellings. The population of the counties above given is in round numbers 745,000. To illustrate more forcibly the fact that typhoid fever prevails to a greater extent in the rural districts, I have taken a number of counties seemingly the most favorably situated of those of the State, whose population aggregates 740,000, and I find that typhoid fever in 1880 caused 6.4 *per cent.* of the total mortality.

During the year 1879, 3830 deaths were reported from consumption, and 1679 from unclassified lung diseases. Both these classes may be grouped together under one head, and called consumption. Then 19.5 *per cent.* of the

total mortality for that year was caused by this disease. More than double that caused by scarlatina and diphtheria, two diseases most dreaded by the community.

Is this enormous waste of human life beyond our control? Must we sit idly by, and see the dreadful destruction go on? Our notions, as to the etiology of consumption, need revision. The physicians of Ohio, with few exceptions, disbelieve the doctrine of the infectiousness of consumption. Experiment and clinical observation are daily multiplying the proofs which will ultimately conduct us back to the old opinion entertained by the ancients: that consumption is contagious. This was the opinion of all our authorities down to the time of Sir Thomas Watson. His lectures, which were read with delight by a generation of now active practitioners of medicine, were the principal cause of the present aspect of medical opinion on this subject. In the south of Europe, there still exists the same dread of post-mortems of the bodies of consumptives which Morgagni confesses to have felt, both in his youth and age. And that this dread is not without foundation, is shown by the experience of Leannec, recorded Vol II, page 180, *Traite de L'Auscultation Mediate*, Paris, 1837. How much this accidental inoculation may have had to do with his subsequent death at the early age of 45, cannot be told.

Cohnheim says "the tuberculous poison probably in most cases enters the system with the respired air." If this poison can thus enter the system, and set up its morbid action, consumption is a contagious disease, communicable by germs which float in the atmosphere. Tubercle is no longer to be known as a "pitiable product" (Bennett), but as a vigorous growth, capable of throwing off infecting particles of protoplasm, which may germinate when they fall on fruitful soil. Villemin, Waldenburg, Sanderson, and others, have made successful inoculation experiments. Tappeiner, in 1877 and 1878, made a series of experiments, which have been of the highest value to pathology. "With the sputa of consumptives and water he prepared an emulsion, and caused dogs, for an hour and one-half each day, to inhale this liquid by pulverization. He chose the dog because of his feeble predisposition to tubercle. He treated, in this way, eleven animals during periods varying from three to six weeks. With two exceptions, these dogs preserved the aspect of health during the experiments. They suffered no diminution in weight, but the autopsies established in all, except two cases, which were a little doubtful, miliary tuberculosis of both lungs. Cattle are affected by tuberculosis which is communicable by inoculation, by exposure to the emanations from the lungs of affected animals, or by feeding in the same stall where a sick one has previously fed. The calves which drink the milk furnished by tuberculous cows, become victims to the same morbid process. This disease is communicable to man. This subject has been exhaustively

studied under the name of "bovine tuberculosis," by Creighton. The clinical aspect of "bovine tuberculosis" is almost identical with that of acute miliary tuberculosis in man, but its morbid anatomy is so peculiar as to render a post-mortem diagnosis possible in the human subject. Pigs and other animals fed on the milk of tuberculized cows, become tuberculous. We have here a possible solution of the cause of increased mortality in bottle-fed children, from tuberculous diseases.

I quote the leading characteristics of the morbid anatomy of bovine tuberculosis. The lungs contain closed and open cavities. "Flat, round, or oval nodules, of the size of duck weed leaves, on the under surface of the diaphragm where it comes in contact with the liver being the favorite situation. * * * The base of the lung is covered with a number of flat, round, leaf-like bodies, attached to the surface by a slightly marked pedicle; they are for the most part membranous, and the edges are sometimes turned up, thereby showing the clear space between the pleura and the under surface of the leaf. * * * The formations around the sharp margins of the lung are very commonly met with, and they are sometimes the only indication of the disease present on the serous membranes. * * * These formations on the pleura, and more particularly on the thin margins of the lung, are something special and distinctive, appears beyond a doubt." (Creighton, *Bovine Tuberculosis*, London, 1881, page 53, *et seq.*) Bovine tuberculosis may be communicated to man by the raw or cooked flesh, and by the milk of tuberculized animals. "That tuberculosis is rapidly on the increase, no well informed veterinarian will deny. It ranks among the few great scourges of the land; and though thus far, our losses in live stock property have been largely due to other plagues, which sweep their victims off in a manner to be seen by all, yet the ravages of this disease can only be realized * * * when we take into account the slow but certain decimation of many of our best herds, the destruction of our animal supplies, and also the danger to human life which can no longer be considered chimerical;" (Diseased Meat. etc., page 5, *et seq.*, by N. Cressy, M. D., V. S., Ph. D.)

Dr. Heath, cited by Cullimore (Consumption as a Contagious Disease, page 42, *et seq.*), says that if cows were allowed to die from natural causes, the proportion succumbing to tuberculosis would be quite as great, and probably much greater, than in the human subject, * * * and it is the opinion of another eminent authority that there are few animals that have been kept for any length of time in cow-sheds, and fed and milked in the usual manner, which are not more or less affected, especially if the cowhouses are bad. The serious aspect of the matter, of course, is that it is probably one of the sources of this terrible scourge of human life; a disease which causes from a seventh to a fifth of all deaths. "Tuberculosis in the porcine species is always of the acute variety. The flesh of the tuberculous pig is more dan-

gerous than that of the cow. * * It, from its acute course, is more easily detected." (*Op. cit.*) "There is sufficient evidence that tuberculosis may be produced by using the milk of tuberculous cows, to justify the employment of careful preventive measures."—(Flint's *Practice*, page 50, 5th Ed.)

Bovine tuberculosis is not unknown among the herds of Ohio. Prof. N. S. Townshend, of the State University, has kindly sent me the following note of a post-mortem of a cow: "The lungs were nowhere adherent to the sides. There was no fluid in either pleural cavity, but on the left side were numerous granular masses, *each attached by a pedicle, spread out flat* and wide between the walls of the chest and lungs. The bronchial glands were enlarged. * * * Her disease was manifestly tubercular consumption."

A study of the chart of the distribution of consumption, prepared from the 9th census, shows that Ohio is divided into three unequal and irregular divisions, which are marked by different ratios of mortality from consumption. The first division consists of the lake counties, those on the western border of the State and those of the east and south eastern portions of the State, which include the mining regions east of the territory drained by the Scioto river, as well as those drained by the Mahoning, Tuscarawas and Muskingum rivers. This section has *20 per cent.* of the total mortality caused by consumption. The second division includes Cuyahoga and Hamilton counties, and that region of the State drained by the Scioto river. The borders are somewhat irregular. This section has a mortality of *14 per cent.* from consumption. The third division is composed of Mercer, Van Wert, Auglaize, Allen, Hardin and Logan counties, which have a mortality from consumption of *9 per cent.* These territories, except the last, cross all geologic systems of the state, and contain every variety of soil. They contain alike farming, mining, and manufacturing communities, and hence we cannot appeal, with confidence, to the physical features of the soil, or differences in social conditions, to account for the differences in mortality. The moisture of the atmosphere, that rises from large bodies of water, has been deemed a prominent etiological factor, and yet Cuyahoga has *6 per cent.* less of mortality from consumption than counties east or west of it.

Thin soil, with water approaching the surface, has been thought to be a cause of consumption; yet the counties that are less perfectly drained than the others, in that region, have the lowest rate of mortality in the State. I have found from the study of the reports of several successive years that the mortality from consumption remains almost uniform in these districts from year to year. To explain the continuous rate of mortality in these regions, in addition to those causes which are ordinarily thought to cause consumption, I must add another, the infectiousness of the disease.

Consumption does not prevail in newly settled sections of our country: but once having become located, then it is never dislodged. The infectious

character of consumption is a fact of primary importance. The secondary elements in its etiology—heredity, insalubrious surroundings—have received the greatest attention from the profession, while the greater danger has been neglected. The evidence is daily increasing, which, in the end, will show, I believe, that consumption may be brought within the realm of disinfectant and other hygienic measures.

The following are the conclusions of Musgrave Clay, deduced from one hundred and eleven observations made upon the contagious transmission of consumption :

1. Phthisis, or tuberculosis, may be acquired by contagion.
2. The facts actually known are too few, and frequently have so little relation to each other, to enable us to determine with precision, the circumstances under which the contagion can become active.
3. Life in common, especially during the night in an illy ventilated apartment, sexual relations, gestation in the case of a tuberculous husband, the youth of the healthy subject, sedentary life of the exposed subject, advanced state of the local lesions in tuberculous subjects, are conditions which may be considered favorable to contagiousness.
4. The facts observed, if not rigorously demonstrating the contagiousness of consumption, are nevertheless of such a character as not only to justify, but to compel, all the hygienic precautions which these conclusions suggest.
5. The manner in which the contagion occurs, in the present state of science, is undetermined.
6. It is probable that it is due to the suspension in the air of particles resulting from the desiccation of the various excretions of the phthisical patient (sputa, sweats, etc.).
7. It is possible that the air thus contaminated does not become noxious, except when the particles which it contains enter into the bronchial ramifications, and come in contact with surfaces accidentally eroded or irritated, and consequently absorbant; nevertheless this is a theoretical view of the author, which remains to be verified.
8. It is probable that contagion by alimentation is possible. The presumptions in favor of this view are sufficient to cause us to take the matter into serious hygienic consideration.”—*Etude sur la Contagiosite de la phthisie pulmonaire*, Paris, 1879.)

Says Jaccoud: “The transmission of tuberculosis has been demonstrated by inoculation made experimentally ordinarily, but which may by chance, be realized by an accidental wound, by inhalation of air more or less laden by diffusible elements furnished by the patient’s products of expiration, particles of sputa; perhaps also, but less certainly, by sudoral evaporation. The dangers are realized in their maximum by nightly cohabitation, especially by sleeping together in the same bed, and are more to be feared when ventilation

is imperfect. These etiological notions impose upon the physician new obligations, to take great precautions as to the surroundings of his patients. He ought not only to treat them, but he ought in every way possible to preserve from all danger of infection, those persons who are habitually in contact with them, and counsel prudence in the attentions born of affection. There should be good ventilation of the sick room, and twice daily pulverizations of carbolic acid, or benzoate of soda. There should be kept constantly in the vases which receive the sputa, a disinfectant fluid. The linen and clothes soiled by the expectorations should be disinfected. These are the most important obligations. There should be a separation of husband and wife, to whom there should be neither a common bed nor a common chamber. Infants should, under no circumstances whatever, be allowed to occupy the room of a person suffering from consumption, however little the disease is advanced."—Jaccoud, *Phthisie Pulmonaire*, 1881.

During the past winter there has been great alarm in Europe about trichina in American pork. The subject of trichinosis was very fully reported upon by Asst. Surgeon Glazier, to the Treasury Department, U. S. Upon the conclusion of the investigation, a circular was issued by the Secretary of State, for the purpose of allaying alarm about pork, and to prevent the destruction of a great American industry. The following is a portion of the circular:

Eighth—That the percentage of American hogs infected with trichinae (though this question is thus far largely one of supposition) is in all probability, by reason of the superiority of the breed and feed, much less than that among the hogs in any other country.

Ninth—That the freedom from trichinosis of the two great pork consuming centers of the West, Chicago and Cincinnati, furnishes the strongest possible evidence of the purity of American pork. In Chicago, for a series of years, in which 40,000 deaths were reported with their causes, only two cases of trichinosis were reported. In Cincinnati, during the same period, not one case was reported.

Tenth—That the reported cases of trichinosis have resulted from eating uncooked meat, shown to be inferior or rejected, and that thoroughly cooking entirely destroys this parasite and removes all danger, in this regard, from eating pork."

The above reads to us as if the sheen of the "almighty dollar" had caused an obliquity of vision in the person who penned it. There is at least a disposition to announce conclusions unsupported by facts. That the breed has anything to do with the liability to infection of hogs with trichina, I do

not believe; for the disease has been found among the wild boars of Syria and China, as well as the Chester Whites and Berkshires of the United States.

Because no deaths have been reported from trichinosis in Chicago or Cincinnati, to assume there were no cases of trichinosis, is a logical fallacy.

Our freedom from attacks of trichinosis, no doubt depends upon our thorough cooking of pork before it is eaten. But in spite of this, away from our "pork consuming centers," in the rural districts of Ohio, trichinosis has occurred. During the last winter, three cases occurred in the practice of Dr. M. C. Cuykendall, of Bucyrus. The parasite was recognized in some ham which had been cured at home. Specimens of this meat were sent to me, which was literally swarming with the worms. In a recent number of the *Chicago Medical Review*, Dr. Christian Fenger reports two cases of trichinosis. In this report he uses the following language: "As cases of this disease are far from uncommon in this part of the country, * * * I publish the following two cases to enunciate my views on the subject."

Of 2,044 cases collected by Glazier, 231 died: a mortality of 7.6 per cent. This shows it is not more fatal than typhoid fever,—contrary to the opinion usually entertained. From the similarity of its progress to some other acute diseases, no doubt many cases of trichinosis occur which are unrecognized.

One third of the sickness and death in Ohio is caused by diseases which are clearly preventable. The prevention of sickness and death is the function of Sanitary Science. I have shown that disease and death are destructive to capital. Their prevention saves capital, and Sanitary Science becomes a productive industry.

The State demands the allegiance of her citizens, and may call for the sacrifice of their lives in her defense. Has the State no duty to her citizens? Most of the European governments, by Sanitary police and legislation, try to guard the life and health of their subjects. Massachusetts, Michigan, Illinois, West Virginia, Colorado, California, Tennessee, Kentucky, Louisiana, Arkansas, have established State Boards of Health. Ohio, the third State in the Union, with a population as intelligent as that of any State, has done nothing in this direction.

The establishment of a State Board of Health in the State of Ohio, is demanded by political economy, and the humanitarian spirit of the times. This Board should be composed of men of known scientific ability, who should be appointed regardless of their political opinions. To this end the Medical Profession should use its influence, and not cease till the purpose is accomplished.

I here append a table which shows the number of deaths and births per 1,000 for each county in the State. The general average is less than in 1870 for births.

COUNTIES.	Deaths in Ohio in 1880 per 1,000 population, by Counties.	Births in Ohio in 1880 per 1,000 population, by Counties.	COUNTIES.	Deaths in Ohio in 1880 per 1,000 population, by Counties.	Births in Ohio in 1880 per 1,000 population, by Counties.
Adams	8.3	19.	Logan	9.	19.8
Allen	10.	25.6	Lorain	10.	16.8
Ashland	6.5	17.	Lucas	8.5	20.4
Ashtabula	9.1	14.6	Madison	8.	20.45
Athens	6.5	23.	Mahoning	7.	20.7
Auglaize	9.3	28.7	Marion	9.6	24.95
Belmont	7.7	20.8	Medina	9.6	19.9
Brown	8.6	20.6	Meigs	7.4	23.
Butler	10.	16.4	Mercer	10.5	29.
Carroll	7.8	23.8	Miami	8.8	19.5
Champaign	8.7	20.	Monroe	9.2	30.
Clarke	8.	19.	Montgomery	14.	22.5
Clermont	8.	20.	Morgan	8.9	23.4
Clinton	8.	19.	Morrow	6.7	20.3
Columbiana	10.8	26.	Muskingum	10.	20.
Coshocton	7.5	21.6	Noble	7.	26.8
Crawford	9.	23.9	Ottawa	8.2	23.3
Cuyahoga	8.4	21.6	Paulding	12.	30.8
Darke	10.	27.5	Perry	7.	26.
Defiance	7.	24.5	Pickaway	9.4	22.6
Delawaae	7.5	19.	Pike	8.	26.7
Erie	8.7	21.4	Portage	10.	15.8
Fairfield	7.7	19.8	Preble	9.	18.5
Fayette	6.8	21.2	Putnam	10.	27.
Franklin	7.	16.	Richland	7.7	18.
Fulton	8.8	22.6	Ross	8.	21.5
Gallia	7.	24.	Sandusky	7.	20.8
Geauga	11.	17.	Scioto	12.	26.
Greene	8.	16.4	Seneca	9.	22.7
Guernsey	7.	20.	Shelby	9.	23.8
Hamilton	8.5	19.5	Stark	6.3	18.5
Hancock	10.	28.	Summit	7.	19.6
Hardin	10.	23.4	Trumbull	6.7	20.5
Harrison	6.	18.3	Tuscarawas	7.	26.6
Henry	6.	18.5	Union	9.	27.
Highland	8.8	21.6	Van Wert	9.	20.3
Hocking	7.	25.7	Vinton	7.	30.
Holmes	8.9	27.7	Warren	9.8	39.
Huron	9.	20.5	Washington	8.5	21.7
Jackson	7.	27.2	Wayne	9.	12.3
Jefferson	8.3	18.	Williams	9.5	32.3
Knox	9.	19.6	Wood	8.	15.
Lake	8.5	12.5	Wyandot	7.	28.
Lawrence	6.	25.			
Licking	7.9	18.15	Average	8.6	19.7

A CASE OF HYSTERIA.

BY J. C. REEVE, M. D., DAYTON, O.

As Reported to the Montgomery County Medical Society.

This case is reported with especial reference to the treatment of hysterical convulsions, and to the use of a remedy which, although it may be called a standard one, I do not believe to be generally appreciated, or used as frequently as it deserves to be.

The patient in this case is between seventeen and eighteen years of age, and the interest of members of the Society in it may be heightened by the statement that she was the plaintiff in the case of the State vs. ———, which was tried in our Common Pleas Court some years ago; a case which presented some extraordinary points of evidence and of procedure. The girl was then just past thirteen; she went from her employer's house to the butcher's shop of the defendant, about eleven o'clock in the forenoon to get meat for dinner. She swore that while there the defendant threatened her with a butcher knife, threw her on the floor and committed a rape on her. The shop was situated immediately on the line of the principal thoroughfare of the eastern part of the city, the front door was half sash, and the man's wife was working in the back yard at no great distance. Whatever may have occurred in the shop between the parties, it was shown that she reached her employer's house in a state of great agitation, the meat covered with dirt, her clothing disordered, and she passed the day in a state of great excitement, having previously shown no conduct of the kind. She also swore to having been threatened afterwards by the prisoner, at a time and under circumstances when it seems impossible that she could have seen him.

I examined her person in reference to the alleged crime. As it was a week afterwards, there were no marks of violence; plenty of evidence that there had been, at some time, penetration.

The result of the trial was that the jury found the prisoner guilty. Judge Elliott, however, instead of sentencing him to the penitentiary, set the verdict aside, on the ground of insufficient evidence, and the man was set at liberty, under bonds to appear for trial when wanted, but no further proceedings were ever instituted.

I saw the patient on a Monday. She was in bed, and so unconscious that only by repeated efforts could partial protrusion of the tongue be obtained. Her extremities were in constant and irregular motion, legs and arms were jerking simultaneously and alternately. I was told that these convulsive movements had lasted without intermission, except during sleep, *for six weeks*. During this time she had been under the treatment of a physician, and another had seen her several times in consultation. "Putting the womb in place," I was informed, was one measure of treatment. Further examina-

tion revealed a loaded tongue, foul breath, and a tumid abdomen. The bowels had not moved since the preceding Friday.

I left a good cathartic dose, of which podophyllin was an ingredient, and began the moral treatment by some strong remarks to her mother on the certain curability of the case, but that it might require very severe measures. I had but little faith in her unconsciousness.

The next day she was better, so as to put out her tongue and answer in monosyllables; the convulsive movements the same. I left another cathartic and gave another dose of "talk!" "It was a pity to see a fine girl suffer so! She could be cured, but sometimes we had even to burn the spine with a hot iron to save such cases." The next day this was repeated, and a tonic prescribed, as the condition of her digestive organs was much better. On the fourth day, the convulsive movements continuing, I proceeded to ulterior measures. I assured the mother that I could cure her, and obtained her assent to do as I pleased, promising that I would not injure her daughter. A strong neighbor woman was brought in and instructed as to what I wanted her to do. I provided a large pitcher and a pailful of cold water from the well, and a washtub. The patient was drawn across the bed, her head and shoulders over the tub, the assistants holding a shoulder and arm on each side. Then, on her upturned face, I poured the cold water in a steady stream, and from as great a height as I could raise my arm. She struggled, tussled and fought, but was held firm. I had a good hold of her back hair with my left hand. She opened her mouth to scream, but the stream of water was directed into it, and she tried that but once more. I did not draw on the pail of water. Before the ewer was empty the convulsions had ceased! They have not returned since! As I assisted in drying her, with many expressions of sympathy and shame for treating a young woman in such a manner, they gave indications of beginning again; but a movement toward repeating the douche promptly checked them. She is not yet well, but she has had no more convulsions.

It was the remark of an eminent man, after he had passed a lifetime in the profession, that when he began practice he had twenty remedies for a single disease; toward the close of his career he was glad to feel sure that he had one. Now, I feel sure that for one disease, or one form of disease, I have a remedy—a reliable, certain remedy. It is not only once that I have used the cold douche successfully for hysterical convulsions, nor twice, nor three times, but repeatedly, and it has never once disappointed me. It is evident that there are conditions essential to success with it which should be borne in mind by those who would use it. It will not do to attempt it and fail. You must be sure of your ground, physical and moral. You must have the patient securely held; escape and resistance must be impossible. You must be master of the situation morally; if the patient has a weak and

over-tender mother—if she be surrounded with sympathizing female friends, who will interfere—you had better not undertake the douche. The remedy will yield good results only if thoroughly applied, and it is a remedy that can do no harm, however rough in appearance.

How does the remedy act? By its moral effect: by its unpleasantness, leading to fear of its continuance or repetition. Very much, I believe, by interference with respiration. The more effectually the water can be poured into the nostrils or open mouth of the patient, the sooner it will produce its good results. In this connection it is well to bear in mind that some Frenchman, whose name I do not remember, has proposed to treat, or treats successfully, these cases by direct interference with respiration; in plain English, *by choking them!* This measure we cannot put in force in private practice, or indeed anywhere. Yet, from what I have seen of the douche, I believe it would prove effectual, for it is by interfering with respiration and producing a sense of suffocation that the douche, in great measure, produces its good effects.

FROM THE BIOLOGICAL LABORATORY OF THE
JOHNS HOPKINS UNIVERSITY.

BY C. SIHLER, M. D., PH. D. (J. H.), CLEVELAND, O.

Prof. H. Newell Martin, assisted by Dr. W. T. Sedgwick, has been engaged during the last session on investigations upon the mammalian heart, and the results have been interesting as well as important. A short resume of the work was published in the University Circular for April, 1881, and a full and complete account is published in the Studies from the Biological Laboratory, and partly in the Journal of Physiology.

The work was undertaken to settle the question whether the coronary arteries of the heart are supplied with blood during the diastole—a view supported by Brucke—or during systole. The result I give by quoting from the circular:

“Our experiments were made on dogs, placed very completely under the influence of morphia; after a considerable number of failures we have succeeded in getting on seven or eight animals simultaneous graphic records of mean arterial pressure and pulse beats in the carotid and coronary arteries. The results of a careful examination of these are—

1. The blood pressure in the coronary arteries is comparatively very great; being in a small branch very little less than equal to, or greater than, that in the carotid trunk.

I.—3.—3.

2. The coronary and carotid pulses are practically synchronous in time; there is no trace whatever of an alteration in them. This holds true whether arterial pressure be high or low, or the heart's rhythm slow or quick; and every minutest feature of the graphic record in the tracing of blood pressure in the carotid is simultaneously and perfectly repeated in that obtained from the coronary artery. Whether the heart's beat be slowed by stimulation of the cardio-inhibitory nerves, or arterial pressure be greatly raised by inducing dyspnea, the general and sphygmie variations of pressure in the two arteries are perfectly synchronous and similar in form: the record traced from each artery is in its variations an exact duplicate of that obtained from the other.

"The results of these experiments prove that for the dog the Thebesius-Brucke view (with a predilection in whose favor we started) is untenable: although the ventricular systole might be conceived to raise pressure in the coronary artery, it is inconceivable that every minute character of the carotid tracing should be synchronously and perfectly reproduced in that from the coronary artery unless both were due to the same immediate cause, viz.: the elevation of the arterial pressure in the aorta by the systole of the left ventricle; the mouths of the coronary arteries are therefore not closed by the flaps of the semilunar valve during ventricular systole."

These experiments impressed upon Prof. Martin the fact that the mammalian heart is not "so fragile an organ," and he conceived the idea of isolating it and keeping it alive and acting similarly to the frogs' hearts, when removed from the body of the animal. The work was crowned with success. I quote again from the circular:

"To obtain a mammalian heart isolated from the rest of the body and keep it alive for a time sufficient to allow the examination of the effect of various conditions upon its activity, has long been a physiological desideratum. The frog's heart has for years been the subject of minute study, but hitherto the mammalian heart has been a baffling object. It seems to have been forgotten that while the frog's heart is a spongy structure, having no arteries of its own, the mammalian heart is a dense organ dependent for its life on a continuous blood flow in its capillaries; and all attempts hitherto made, so far as I know, have been efforts to apply to the mammal the methods found successful with the frog, with merely the addition of arrangements adapted to keep up the comparatively high temperature at which the mammalian heart normally beats. By working in another way I have recently succeeded in keeping the mammalian heart alive for more than an hour, and beating with perfect rhythm and normal force; the organ is thus made almost as available for study as the heart of the frog. The method adopted is as follows: The animal having been narcotised and the chest opened, the aorta is tied just beyond its arch; then the trunk which, in the cat, gives origin to the right subclavian and the two common carotids, is ligatured close to its

origin, and a canula put in the left subclavian: finally, the inferior and superior venæ cavæ and the azygos vein, and the root of one lung are tied.

“Artificial respiration is of course started so soon as the thorax is opened, and kept up henceforth. The course of the circulation is thus:—left auricle, left ventricle, commencement of aorta (and along the subclavian to the canula which is connected with a manometer), coronary system, right auricle, right ventricle, pulmonary vessels of one lung, and then back to the left auricle; in other words, the only section of the systemic circulation left is that through the vessels of the heart itself. Since the physiological action taking place in the lung are among the best known of all occurring in the body, they may be eliminated, and we have practically an isolated and well-working living mammalian heart for study. The nerves going to the heart may be divided if desired, but that is hardly necessary as the want of blood-flow in the nerve centres of the body incapacitates them after a very short time, and they no longer are capable of exerting any influence on the heart. It is possible, however, that changes in the lung vessels may effect the results of experiments on the heart's work under different conditions (*e. g.* when defibrinated blood is sent into it from a vein under various pressures, or when drugs are administered to it), and an investigation of the nerves, if any, governing the lung vessels must be undertaken as a preliminary to a further study of the direct action of various conditions on the heart's work.”

From the full article published in the *Studies*, it appears that the heart has been kept alive and at work for as much as five hours. In one experiment, at about 2, P. M., the pulse-rate was 96, at 6:30 it was 97.

327 Pearl Street.

TREATMENT OF SCARLATINA.

BY W. R. THOMPSON, M. D., TROY, OHIO.

From a paper read before the Miami County Medical Society.

A patient attacked with scarlatina should be isolated from other children liable to the contagion. All superfluous clothing, and all articles that collect dust, and could serve to retain the scarlatina poison, should be removed as a prophylactic measure. Provision should be made for good ventilation, avoiding drafts of cold air. The patient should be kept perfectly clean. He should be kept in bed until desquamation is entirely completed, say two or three weeks, and when allowed to get up should be confined to the rooms another week. All articles should be thoroughly disinfected, and the useless material burned.

During the course of uncomplicated scarlatina, the following treatment

should be observed: Some diaphoretic mixture should be administered, as spirit of Mindererus with ipecac, or aconite. Bromide of Potassium should be given to allay excitement. The bowels should be moved with some mild cathartic, not containing mercury. Quinia in full doses should be given if the temperature is high, and digitalis to quiet the heart if acting too rapidly. The patient should be thoroughly bathed in tepid water, or, if the fever is very high and the patient plethoric, the baths may be nearly cold, being gradually warmed as the fever and temperature subside. I usually have my patients bathed once or twice a day in tepid water, wiped dry, and thoroughly anointed with vaseline and carbolic acid, in the proportion of five to ten grains to the ounce of vaseline. I regard the frequent ablutions as the most effectual remedy we possess against the dropsy. In an experience unusually large, I can say that where the skin has been effectually guarded during the stage of desquamation, I have never seen a case of dropsy follow. However, it may occur when all the prophylactic measures have been observed.

I find a prejudice existing among older physicians against the use of these baths. I have been met by the statement from friends that such and such a doctor had said it would be certain death to use the bath. I began the treatment, as advised by the most eminent authority, with fear and trembling, but have never regretted its use in a single case. I passed through an epidemic of scarlatina in my early practice, that was accompanied with a fearful death-rate, nearly or quite half the patients died, and some died so suddenly that the disease was not diagnosed until the other members of the family were taken. Out of twenty-five well marked cases of scarlet fever treated by me in 1879, I did not lose a case, neither did I have a case of dropsy follow, and used the warm baths in every case until the scales were entirely removed. During the prevalence of that epidemic, I treated a number of cases of anasarca that followed the mildest type of the fever, and that were not thought sufficiently sick to send for a doctor, until the dropsy showed itself.

In the malignant form of scarlatina, early supporting treatment is indicated. Quinine in full doses, with alcoholic stimulants, carbonate of ammonia and iron, combined with the treatment heretofore indicated, will be required if we would save our patient.

The throat affection should be met by appropriate remedies; a gargle of a saturated solution of chlorate of potash, with carbolic acid or the tincture of iron, will be useful. The throat may be swabbed with glycerine and iron, or tannic acid, iodine and glycerine in various combination. If deep seated inflammation intervenes, more heroic treatment will be required, as caustics, with permanganate of potassa, if there be sloughing and gangrene.

The inflammation of the internal ear should not be neglected. Warm water, containing carbolic acid, should be frequently injected, to be followed

with a solution of atropine. Should the discharge continue, a strong solution of nitrate of silver, or sulphate of copper, should be used after thoroughly washing out the ear. I saw a case of otorrhea, attended with a fearful odor, of ten years standing, cured with pure carbolic acid, *put in by mistake* by the mother. Active agents are the only ones that will cure these chronic discharges following scarlatina.

The treatment of the dropsy is not so easily indicated. The complications may be such that any exact line of treatment cannot be followed with safety. The most important measure of treatment, however, will be to increase the flow of urine and check the drain of albumen from the blood. To attain that end, diuretics, diaphoretics and tonics are indicated. A warm bath is good if the fever is not too high, with jaborandi. Dry or wet cups over the region of the kidneys may be necessary, also iron, if there is anemia, with digitalis to control the action of the heart. Lemonade and water should be used liberally, as they will promote action of the kidneys and cause absorption of effusions as readily as any medicinal agent we possess.

CORRESPONDENCE.

"ANESTHETICS IN LABOR."

EDITORS OHIO MEDICAL JOURNAL:—As I am the correspondent alluded to in your last number, who called in question the truth of the statement made in the number preceding, that there had been deaths from the administration of chloroform in natural labor, I feel compelled to say that your disposal of the question is unsatisfactory. Waiving any debate upon the point as to whether there are or are not any physiological reasons for special immunity in the cases, the inquiry is narrowed down to the record.

My proposition was that a fair case of death from chloroform during natural labor, when administered by a competent medical man, has not been presented to the profession. You refer to the table of deaths which occurred from 1869 to 1879, given in the second edition of Dr. Turnbull's *Manual of Anesthetics*, and state that it contains three "during parturition." Now, referring to this table, it will be seen that in one of these cases the administration was by a hospital "sister," and therefore, does not meet my proposition. The other two are given very indefinitely; one as having occurred to "Dr. Cotting, America," the other in a "Hospital, America." There is

no reference to any journal, but the statement is made that when this is omitted, the reference will be to "*Medical News and Library*" of same date. The date is "Nov. 1878," but that journal of that date contains no such cases! It is impossible, therefore, to reach the original reports of these two cases. However, on page 108, of Dr. Turnbull's book, there is the report of a case by Dr. *Colling* (Cotting?) from the *Boston Med. and Surg. Journal*, Jan. 11, 1876, which is very likely one of the two in question. Here it is:

"The patient was a primipara, age 22. The labor was proceeding well, and the head was apparently on the point of emerging, when the patient had a *slight convulsion*. Chloroform was administered, the pains returned; and, still later, the administration was repeated. The head was gotten away, and the uterus was contracting well, when a *tremor occurred*, the pulse ceased, and the patient was dead."

So when chloroform is administered for puerperal convulsions, and the patient dies, it is the anesthetic which causes the death!! In like manner chloroform has had to bear the blame of the death after ovariotomy and other capital operations; which is all well enough as a measure of lessening the natural disappointment and chagrin of the operator, but will not be accepted by the profession at large.

Dr. Turnbull is, very decidedly, not a friend of chloroform, as shown all through his book; yet the above case is the worst he could do in the way of giving particulars of death from the anesthetic during labor. If such cases are on record, where are they to be found? Dr. Lusk, in 1877, read a very excellent paper before the American Gynecological Society, (*Transactions*, Vol. II,) "On the Necessity of Caution in the Administration of Chloroform during Labor." In it he gives no fatal cases, but says there is no record of a death during parturition when the anesthetic was administered by a competent medical man.

I trust, Messrs. Editors, that you will not look upon me as a partisan in this matter. I am a warm advocate of chloroform for mitigation of the sufferings of natural labor, but hold myself always ready to receive new light and more facts, but I am not willing to allow "false facts" in regard to a valuable remedy to pass unchallenged.

Yours Truly,

J. C. REEVE.

[The original statement of the author criticised, was: "No death by either chloroform or ether used during labor, has, we believe, ever been reported." Our reviewer said: "He is in error in his belief;" basing this statement on Turnbull's three cases. Dr. Reeve adds to the original statement a condition, "when administered by a competent medical man." With this condition added, we will not call in question the original statement.

It would be interesting to know whether our correspondent's explanation

(which seems plausible) of Turnbull's second case—by making Dr. *Colling* and Dr. *Cotting* the same person—is correct; also, we would like to have fuller particulars of the third case. Can Dr. Turnbull furnish the desired information?—J. F. B.]

TRANSLATIONS.

FATAL POISONING BY CARBOLIC ACID.—The following observations have been reported by Hermann Freidbirg (*Virchow's Archiv.*):

It is well to remember that carbolic acid in excessive doses is a poison, like all other active medicinal agents, and that it is necessary to know how to use it, in order to prevent unpleasant effects. The patient was a man of twenty-three years, suffering from wounds of the head, but on the high road to recovery. Unfortunately this gentleman swallowed, by mistake, a solution of carbolic acid. In the space of twelve minutes, all the symptoms of phenic acid poisoning were present, and the patient died. The symptoms observed after the poisoning were as follows: Paleness of face, constriction of the muscles of the jaw, contraction of the muscles of the pharynx and neck, muscular spasms, collapse accompanied by delirium, chilliness and cyanosis; finally, convulsions, retarded respiration, death. The autopsy revealed the presence of congestion of the duodenum and stomach. This observation demonstrates that 130 grains of carbolic acid can kill a man aged twenty-three years, in twelve minutes.—*Journal de Medicine et de Chirurgie*, July, '81.

INTERNAL HALLUCINATIONS.—Dr. Ball, in his *Leçons sur les maladies interne*, relates some extremely singular cases of hallucination. Several insane patients experienced strange sensations in their bodies which could not be attributed to real lesions. One Alsatian peasant complained of having a clergyman in his belly. The presence of this disagreeable guest caused him intense pain. Shortly afterward the patient claimed that four other priests in the neighborhood had taken up quarters in his left iliac fossa, and were holding animated discussions on theology. The pains of the patient increased in violence and became intolerable. One morning he died, and, at the autopsy, the descending colon was found to be diseased from chronic enteri-

tis. The diseased point corresponded exactly with the location of the supposed school of theology.

Esquirol relates a similar case in which the patient believed an Ecumenical council was being held in his belly, and would cry out from time to time "I cannot tolerate the clergy any longer! When will there be peace in the church?" This patient died of acute peritonitis.—*Ibid.*

T. C. M.

SOCIETY PROCEEDINGS.

CLARK COUNTY MEDICAL SOCIETY—AUGUST SESSION.

The Clark County Medical Society held its regular meeting for August at the agricultural rooms, Dr. T. M. Carroll, President, in the chair. Members present: Drs. Bryant, Carroll, Driscoll, Hazzard, Huffman, Kay, Marquart, Nelson, Reddish, Reeves, Rodgers, Seys, Spinning, Swayne and Totten.

Dr. Totten brought a clinical case before the Society, in the person of a young man suffering from an effusion of purulent matter in the cavity of the pleura. This case was commented on by Drs. Spinning, Reddish and others.

Dr. Bryant read an essay on pneumonitis. He discussed the multiform theories and modes of practice which have obtained at various times during the past history of medicine, especially those entertained and so ably promulgated by Dr. Hughes Bennett, of Edinburg. Dr. Bryant combatted the theory or proposition that the amount of lung engagement was the exact measure of the injury, more or less permanent, of that organ. This point involved the whole practical question as to the propriety or impropriety of blood-letting as a means of cure.

Dr. Seys gave a minute analysis of all the elements or processes entering into the constitution of inflammation, namely: Stasis of the blood in the part affected, or congestion, retarding of the circulation, and adherence of the globules to the vascular walls, and finally extravasation, or passing of the thinner ingredients of the blood into the connective tissues. The primary object of the practitioner was to relieve the diseased parts of this abnormal accumulation of blood. This was done by a variety of means. If the patient be full-habited or plethoric, general blood-letting might be called for,

but if anemic, or the reverse of the first mentioned condition, venesection would be contra-indicated. Veratrum, aconite, or nauseants were effective. Derivatives should be used or repellants, such as blisters, cold, etc., as local means of treatment. The physical constitution of the people had undergone considerable change, as to robustness, during the last century, so that there was less need of active antiphlogistic measures, in the treatment of inflammatory affections now than formerly.

Drs. Totten, Driscoll and Spinning made brief remarks upon the subject under consideration.

Dr. Hazzard had a good opinion of the advanced position taken by Prof. Hughes Bennett in regard to the treatment of pneumonia and other like affections. He thought that the management of this disease was far more rational and successful now than twenty or thirty years ago. He had generally seen the disease yield of late years under the less potent course of medication.

Dr. Reeves thought that our commonly accepted system of medical nomenclature was, in some respects, faulty. It often failed to set forth the pathological condition intended to be represented by it. In this way the medical student might be misled instead of being properly directed. He was somewhat skeptical as to the existence of certain alleged diseases. At all events they had been misnamed, and their treatment not always quite rational. Dr. R. then gave an outline of what he regarded as safe and successful medication in the class of cases described in the essay.

Dr. Spinning brought to the notice of the Society a case of abscess of the liver, simulating empyema. The true character of the case had eluded the attention of several acute medical observers for a number of days, until the hepatic enlargement revealed its true nature. The patient was aspirated and a large quantity of pus removed.

Dr. Reddish made his final report as Treasurer of the Society.

Drs. Swayne and Banwell were appointed essayists for the September meeting.

The Society then adjourned to meet again on the second Thursday in September.

T. M. CARROLL, M. D., *President.*

ISAAC KAY, M. D., *Secretary.*

PROCEEDINGS OF MIAMI COUNTY MEDICAL SOCIETY.

SCARLATINA.—The subject for discussion was scarlatina. Dr. Thompson, of Troy, opened with a well prepared paper on the subject, which held the attention of the Society closely.

Dr. Ashton, of Piqua, observed that while scarlatina is at times a very trifling disease, it will at other times startle one profoundly, so rapidly fatal

are some cases. In malignant cases, treatment appears to be useless. A disease of the kidney is probably due to disturbed function of the skin, the skin and kidneys holding as they do such intimate relationship, careful attention should be given in the treatment to the condition of the skin during convalescence, that the patient wear flannel underwear and guard against sudden changes of temperature.

Dr. Cline, of Tippecanoe, thought the nephritis may be due to elimination of bacteria setting up inflammation of the tubules, or possibly to the extra work caused those organs by suppression of the functions of the skin. Even in malignant cases he questioned whether we ought to abandon the patient to his fate. Much may be done in cases of excessively high temperature by antipyretic doses of quinia and the cold bath.

Dr. O'Ferral did not believe in the bacteria theory. Thought by continuous use of digitalis the sequel of kidney disease may frequently be avoided.

Dr. Shellenberger said, in Piqua, during the past winter, some satisfactory experiments had been made regarding the antipyretic action of inunction in cases of scarlatina showing extreme body heat, which convinced him that inunction was not only antipyretic in its effects, but that the substance used (ungt. petrolei, carbolized,) probably possessed destructive influence over the infectious properties of the disease; also, it relieved the troublesome itching which nearly always affects the dry skin.

Dr. Wright cited a case of high temperature with alarming symptoms where cold sponging was used every hour. In this case, a perfect membranous cast of the pharynx was thrown off, patient recovering. Prefers cold sponging to quinia for its antipyretic action, since the kidneys already are overtaxed.

Dr. Kessler had treated thirty-five or forty cases the past winter, and in the severe anginose forms used ice locally with satisfactory results. Directed that milk be given freely for its nourishing properties, and especially for its diuretic effect. Has used cold baths with good result where necessary to speedily reduce the fever.

Dr. Humphreys referred to an unusual sequel observed in a case recently. The patient was a young man whose only known exposure was in papering a toll-house where the disease existed. He had the disease regularly, with severe throat symptoms—suppuration of the tonsils and free sanguineo-purulent discharge from the nose; no diphtheritic exudation was noticed—yet one week after the fever subsided, paralysis of the left leg followed.

He asked the members if any had been the medium of transporting the disease to others, referring to an occasion where he was called to a family where measles was prevailing, some hours after visiting some scarlet fever patients, six miles away, and scarlet fever developed in less than a week.

several in the family having both eruptions at the same time, in one with a fatal termination, the death being promptly charged to the doctor.

Dr. Thompson said he had once carried scarlatina to a lying-in woman, the infant taking it as well—both unexpectedly recovering, however.

Dr. Ashton did not want the impression to prevail that he was skeptical about the use of proper remedies, and that he would abandon a case because malignant symptoms developed, for unquestionably recovery does occasionally occur where we have reason to think a fatal result will follow. Uses alkaline baths, which are equal to the ointment, are more cleanly, and allay the itching as well. Since bacteria are found in the blood in other conditions of the system, he does not see how we can regard the disease as due to them.

The Society voted thanks to Dr. Thompson for his able presentation of the subject, to the Superintendent of the Infirmary, for hospitalities, and to Dr. Coleman, the medical attendant of the institution, for courtesies, and adjourned.

The following members were present: Drs. Ashton, Cline, Coleman, Gray, Humphreys, Kessler, Senour, Shellenberger, Sterrett, Thompson and Wright; also, Drs. Robert M. O'Ferral and W. J. Maddox, who were received into membership; and as visitors, Mr. Jennings, medical student, and Rev. J. Y. Leming.

S. S. GRAY, M. D., *President*.

C. H. HUMPHREYS, M. D., *Secretary*.

REVIEWS AND BOOK NOTICES.

Prices are always inserted when furnished by the publisher, or when obtainable from the bookseller.

The Diseases of Children. A practical and systematic work for practitioners and students. By William Henry Day, M. D., Author of Headaches, their cause, nature and treatment; Member of the Royal College of Physicians of London; Physician to the Samaritan hospital for women and children. Second edition, rewritten and much enlarged. Philadelphia; Presley Blackiston, octavo, 744 pp., price \$5. Columbus, R. Jones & Son.

Dr. Day is already favorably known to the American profession as a frequent contributor to the English medical journals, and as the author of an excellent monograph on Headaches. The present work has already reached

a second edition, which may be taken as a fair index of the reputation it enjoys at home. The author, through his official connection with the Samaritan Hospital for Women and Children, has enjoyed exceptional opportunities for the study of the diseases of children. Dr. Day has not only given, in the volume before us, the fruits of his own rich clinical experience, but almost every page bears tangible evidence of his familiarity with the literature of his subject. To an unusual extent, he has interwoven into the text quotations from medical journals, society reports and standard treatises of every nationality. While this feature destroys, to a certain extent, the individuality of the book, it certainly renders it no less acceptable to the student or practitioner.

The subject matter of the volume is arranged in fifty-three chapters; six of which are devoted to the usual preliminary matters and two chapters are given to the diseases of the ear and skin.

Each chapter has a full descriptive heading which is invaluable for ready reference. Another feature, which will recommend the work to many practitioners, is the number of formulæ—one hundred and one—interspersed through the pages. These are collected together at the end of the book, but, singularly, not in the order in which they appear in the text; hence time is necessarily lost in the search after a favorite prescription. The preliminary chapters, covering a wide range of subjects, are interesting and profitable reading. Chapter II, on "Milk Diet and Hygiene," is deserving of special mention as a full and concise epitome of existing knowledge upon these important topics, and should be in the hands of every mother as well as physician. We are, however, tempted to break a lance with our author over his enthusiastic advocacy of condensed milk. Manufactured according to the process of Mr. Gail Borden, of N. Y., he states that it is equal to pure milk in nutritive properties and flavor, and is less likely to undergo acid fermentation. He quotes the statement that dirty milk can not be condensed into a clean flavored article. His arguments are largely drawn from American sources and read very like the advertising circular of a condensed milk establishment. We fully agree with Dr. Day that *pure condensed milk* is far preferable to *impure* milk however fresh, or that from diseased cows, or that contaminated with decomposing and putrid matter; but we respectfully submit that this is begging the question. In London, the difficulty of obtaining pure milk may be so great as to compel the use of commercial articles, but the same necessity does not exist here. We firmly believe that the use of all commercial baby-foods should be discouraged, when practicable. As Dr. Jacobi forcibly puts it: "Trade or money has no soul or conscience."

The fevers of childhood are well described in the five chapters set apart for their consideration. We would call particular attention to the discussion of the exanthemata. We cannot recall any better descriptions of the mem-

bers of this important group than those found here. It is a source of regret that Dr. Day's book does not contain a single reference to the malarial fevers which form with us such an important part of the diseases of early life, and which differ in many particulars from the same diseases in adult life. The infantile remittent fever, described by English authors, is not our malarial remittent, but is a mild typhoid, and is so classified by our author in harmony with the revised nomenclature of the Royal College of Physicians. This omission is perhaps pardonable on the ground that malarial fevers are comparatively unknown in England, but it detracts from its value as an American text-book. The chapters on the diarrheal diseases are most excellent ones, and will richly repay careful reading. There is perhaps too great a tendency to multiply the forms of diarrhea, since, according to his own statement, it is often impossible to separate them in practice. He quotes approvingly Dr. Comegy's treatment of inflammatory bowel affections by frequently repeated cool baths. We believe with Dr. H. C. Wood that, in appropriate cases, Dr. Comegys "has introduced one of the most life-saving improvements in modern infantile therapeutics."

We turn with considerable interest to the chapters on the Diseases of the Larynx, to learn how much light our author is able to throw into the many dark corners in laryngeal pathology. In our humble judgment, no one can read these chapters without a feeling of dissatisfaction; they are certainly not written with the clearness and force which characterize other portions of the book. The clinical portraits of the different laryngeal diseases are not sharply drawn, and in some instances the treatment leads us back to the therapeutics of a former generation. In the chapter devoted to Diseases of the Nasal Cavities, we find some judicious remarks under the heading of "Laryngeal and Tracheal Irritation in Young Children," which, by the way, is the only reference made to the simple inflammation of these organs.

Dr. Day is a firm believer in the non-identity of pseudo-membranous croup and laryngeal diphtheria. He recognizes two forms of croup: the mucous, or catarrhal, and the fibrinous, or inflammatory. We do not clearly catch Dr. Day's classification. If by the first form, he means to designate, as the context implies, a milder form of pseudo-membranous laryngitis, which "stops short of exudation," is of "frequent occurrence," runs a "short course," and "rarely places the life of the patient in imminent danger," we must confess that we have never met with it in our practice. And, on the other hand, if he refers to the common spasmodic laryngitis, we confess our inability to recognize an old acquaintance from the description here given. The second form, according to Dr. Day, is "the *fibrinous croup*, or *tracheitis*, happening to healthy children, which comes on suddenly and is attended throughout with danger. These cases are rapid in their onset, and are quickly fatal." This description is opposed to the teaching of all modern

authorities with which we are familiar. True croup, or pseudo-membranous laryngitis, is very occasionally ushered in suddenly, but in the vast majority of cases "it begins with symptoms which at first are slight, so as scarcely to arrest attention, but which gradually increase in intensity" (Smith). There are indeed few acute diseases, which, according to our observation, creep on so slowly and so insidiously as the one under discussion.

Under the head of Treatment we read: "I have observed nothing of late years to induce me to materially alter my opinion from the following conclusions at which I arrived in 1863." If the author has been chained to false idols thus long, we fear that from a therapeutical standpoint he is hopelessly lost, and that there is little to be expected in future editions. Some of his propositions on Treatment, in the present state of our knowledge, could not be better, while others could not be much worse. To justify the above statement, which may seem unduly harsh, we quote as follows:

"6. Tartarated antimony is our sheet anchor as a medicinal agent, not so much from any specific effect it exerts on the tracheal membrane, as from its certainty in effecting free and speedy vomiting.

"7. When the emetic has fully operated, if there be much febrile excitement and disordered *prima via*, which aggravate the laryngeal symptoms, a grain of calomel every four hours, or one full dose for the purpose of emptying the bowels and controlling the fever, will be found necessary. In the fibrinous form, when there is violent and acute inflammation, with a hard pulse and full reserve of strength, two or three leeches may be applied over the thyroid cartilage and bleeding can be easily arrested by pressure with the finger and if need be with cotton-wool; then mercury may prove a valuable addition to the antimonial treatment. Some of my cases improved from the moment the mercury affected the bowels, the fever diminishing, and the expectoration of the false membrane being promoted. When employed in small doses at regular intervals, it would appear to diminish the cohesive attachment to the mucous membrane and to render the lymph less fibrinous and more readily absorbed.

"8. * * * If after vomiting the temperature remains high, and especially when the bowels have acted freely, minim doses of aconite every two or three hours are of great service in inflammatory croup. This keeps up a gentle diaphoretic action on the skin, diminishes tension of the pulse and controls vascular excitement in a very striking manner." We submit the above extracts from his mode of treatment without further comment.

It may be well, however, to caution the reader, in regard to the doses of aconite recommended here and in other places in the work, that the Tincture of the British Pharmacopeia, prescribed by the author, is only about one-third the strength of the U. S. P. Tincture.

The several chapters on Diseases of the Lungs and Heart are full and

complete, and very accurately reflect the views in pathology and treatment. They deserve careful study, and will be found of practical assistance to those seeking information upon these subjects. The Diseases of the Nervous System receive the attention which their importance demands, The chapters on Acute Anterior Poliomyelitis and Tubercular Meningitis, deserve special mention.

Although we have had occasion to criticise somewhat sharply some of the author's statements; we desire to record our opinion that Dr. Day's book is, in many respects, a most excellent one. It is full of valuable facts and suggestions which will make a welcome addition to the working library of every practitioner.

Dr. Day is a pleasant writer, and proof everywhere abound that the vast fields of medical literature, both native and foreign, have been diligently and intelligently gleaned in the preparation of the volume under notice. The typographical execution of the volume sustains the well-known reputation of the publishers, to whom thanks are due for rendering Dr. Day's work accessible to American readers.

W. J. C.

Anatomical Studies upon the Brains of Criminals, Etc.; by Moriz Benedikt, Vienna. Translated from the German, by E. P. Fowler, M. D. Wm. Wood & Co. : New York. 1881.

This book contains the conclusions of the author drawn from the study of the brains of twenty-three criminals. The study was undertaken to prove certain *a priori* conclusions of the author, resting upon a study of the psychological conditions of criminals.

The anatomy of the convolutions of the typical brain is first given. Then it is shown that the convolutions of the brains examined are atypical. 1st, as to the extent to which the cerebellum is covered by the cerebral lobes. 2d, by the reversion of the type of the fissures separating the convolutions, to that of the lower animals. "The brains of criminals exhibit a deviation from the normal type, and criminals are to be viewed as an anthropological variety of their species, at least among the cultured races," is the proposition which formulates the conclusions of the author.

The psychological characteristics of criminals are: "An inability to restrain themselves from the repetition of a crime, notwithstanding a full appreciation of the superior power of the law (society); and of a lack of the sentiment of wrong, though with a clear perception of it."

These conclusions being granted, then mankind has been mistaken as to the methods to be invoked in the treatment of any and every grade of crime. Society has no hope of reforming a man with a "criminal brain." The criminal acts from the necessities imposed upon him by organization. He must be shut up, as an insane man who is dangerous to society is; for being

impelled by his vicious organization, he will ever prey upon society when at large, and society must protect itself or suffer.

This doctrine is in harmony with the leading philosophical ideas of the times, when driven to their legitimate conclusions. It abrogates moral responsibility, for it places man in the fetters of fate.

The study is interesting, but not conclusive.

K.

A Practical Treatise on Impotence, Sterility, and Allied Disorders of the Male Sexual Organs; by Samuel W. Gross, A. M., M. D., Lecturer on Venereal and Genito-Urinary Diseases, in the Jefferson Medical College, etc., etc. Philadelphia: Henry C. Lea's Son & Co. 1881. 8vo.; 16 illustrations; pp. 170. Columbus: Geo. W. Gleason.

We find here four chapters. The first is on Impotence. The author makes four kinds of impotence; atonic impotence, either with or without hyperesthesia of the prostatic urethra; psychical impotence; symptomatic impotence, from the use of cerebral sedatives or excitants, or injuries to the brain or cord; organic impotence, either from malformations or diseases of the penis, or of the testes.

Sterility, the subject of the second chapter, the author thinks is of more frequent occurrence than is generally believed by writers. He has found that in unfruitful marriages the husband is at fault in one case in six. He divides the sterile into three classes: those in whom there is absence of the spermatozoa, those in whom there is absence of the semen, and those in whom there is misemission.

Spermatorrhea the author regards as due almost invariably to appreciable lesions of the prostatic urethra, brought on by masturbation, sexual excesses, or ungratified sexual desire. The prognosis is, therefore, on the whole rather favorable.

Prostatorrhea, which is in many respects closely allied to spermatorrhea, the author attributes to the same causes, although gonorrhoea is also a frequent cause.

The book is well written. The author is manifestly perfectly familiar with the literature of his subject, which he presents in a clear, forcible and agreeable manner.

A Treatise on the Continued Fevers; by James C. Wilson, M. D., Physician to the Philadelphia Hospital, and to the Hospital of the Jefferson Medical College, and Lecturer on Physical Diagnosis at the Jefferson Medical College, Fellow of the College of Physicians of Philadelphia, etc., with an introduction by J. M. Da Costa, M. D., Professor of the Practice of Medicine and Clinical Medicine, at the Jefferson Medical College, Physician to the Pennsylvania Hospital, Fellow of the College of Physicians, Philadelphia, etc. New York: William Wood & Co. Cleveland: P. W. Garfield. Pp. 365.

This is the April volume of the Library of Standard Medical Authors:

Dr. Wilson has aimed to combine in this volume all the most important

points in the history and literature of each of the fevers, with the recent observations of himself and other careful and observing practitioners.

The style is interesting, and there is so much that is new and fresh that the attention of the reader does not flag.

The introduction, by Da Costa, is full of useful hints. He insists on good nursing, cleanliness, regularity, ventilation, quiet. He speaks of diet and stimulants, and the general treatment of pyrexia. He closes with some excellent personal advice to the doctor.

Syphilis and Marriage. Lectures delivered at the St. Louis Hospital, Paris. By Alfred Fournier, M. D., Professor in the Faculty of Medicine, Paris; Physician to the St. Louis Hospital and Member of the Academy of Medicine. Translated by P. Albert Morrow, M. D., Physician to the Skin and Venereal Department New York Dispensary, etc., etc., New York: D. Appleton & Co., 1881. Price \$2.00.

This is a book replete with knowledge; on an exceedingly interesting subject; and written by one, who is perhaps better than any other person qualified to do justice to the important matter it discusses.

It is an attempt, and a very successful one, to explore a field hitherto almost entirely neglected—as no special treatise on the relation between syphilis and marriage has appeared previous to this.

Every physician who has a feeling of responsibility for his advice, must have been at times greatly embarrassed by the question of marriage, put to him by one who has suffered recently or remotely from syphilis. The author, realizing the difficulty and oft times impossibility of giving a categorical answer to this problem, does not attempt it; but puts his readers in possession of sufficient knowledge to guide them in giving an intelligent and honest answer based on the largest and more carefully considered experience when the particulars of the case are presented.

Many syphilographers and physicians have maintained the opinion that syphilis constituted an absolute obstacle—a perpetual bar—to marriage. Our author does not think so. In speaking to one of his *confreres*, who maintained that, “when one had the-pox, one should keep to himself without running the risk of giving it to others, and especially to his wife and children,” he replied: “When one has pox, he should *cure* it; and when by force of care he has rendered it innocuous for others as well as himself, then, having again entered into a normal state, one has the right to aspire to marriage.” We believe this is also the prevailing opinion of the profession.

To say when this cure is complete—to be able to give entire assurance of immunity from any future bad consequence—is a *quod erat demonstrandum*, fraught with many doubts and difficulties. Dr. Fournier considers this part of his subject under the following heads:—

1. *Absence of existing accidents* (symptoms).
2. *Advanced age of the diathesis.*

I.—3.—5.

3. *A certain period of absolute immunity consecutive to the last specific manifestation.*

4. *Non-threatening character of the disease.*

5. *Sufficient specific treatment.*

Under these five different headings the whole subject is most exhaustively and satisfactorily considered, and an amount of knowledge imparted which if more generally acted on, would prevent some of the saddest consequences which ever befall our suffering humanity.

It would be useless to attempt any analysis of the work, which is in itself sufficiently sententious and logical, and nothing but a careful perusal of its pages could give a fair idea of its valuable teachings. To any and every physician, who is at all anxious to act conscientiously in these matters, an acquaintance with the contents of this little book is indispensable.

The translation is upon the whole pretty well done. A trifle too literal at times to read smoothly; but we are much surprised that the translator should persistently use the original word "accident" for symptom, which is undoubtedly the proper English word to be used.

R. M. D.

The North American Review for September opens with a profoundly philosophical article on "The Church, the State, and the School," by Prof. William T. Harris. M. J. Savage treats "Natural Ethics," showing that the principles of morality are rooted in man's nature and are the products of evolution; consequently, that they are not affected by the vicissitudes of dogma or religious creeds. The Hon. John A. Kasson gives a history of the "Monroe Declaration," and proves that the credit of formulating that cardinal doctrine of American statesmanship is due to John Quincy Adams. The Rev. Edward Everett Hale writes of the "Taxation of Church Property." He would have all churches taxed *in form*, but would exempt *in practice* those which by their charitable work help to lighten the public burdens. The other articles in this number of the *Review* are "Jewish Ostracism in America," by Nina Morais; "The Decay of New England Thought," by the Rev. Julius H. Ward; "Ghost Seeing," by Prof. F. H. Hedge; and "Factitious History," by Rossiter Johnson. The latter article is a scathing criticism of Jefferson Davis's recently published historical memoir. Five dollars per year. Address North American Review, New York.

Catalogue of Medical Works: Wm. Wood & Co., Medical Publishers, 241 Great Jones St., New York.

This handsomely gotten-up *brochure* was for presentation to the delegates of the International Medical Congress, which met in London, August 2d to 19th inclusive. Besides the list of medical books, it contains a provisionally daily programme of the doings of the Congress; historical sketch of the house of Wm. Wood & Co., and blank pages for memoranda. It is the most elegant and costly catalogue we have ever had the pleasure of seeing.

The Principles of Myodynamics. By J. S. Wight, M. D., Prof. of Surgery at Long Island College Hospital. Bermingham & Co., New York, 1881, pp. 162.

This is quite an elaborate treatise on the principles of myodynamics, by a gentleman well known as the author of some most excellent journal articles on anatomical and surgical subjects.

There are two kinds of myodynamics:—*myostatics*, when the muscular forces are in equilibrium, as in holding a weight, and *myokinetics*, which treats of motions. Under these two heads the actions of the muscles of the extremities are studied. Numerous mathematical formulæ are given, and the subject is copiously illustrated by diagrams.

It is a work of interest to every student of physiology and of practical value to every one who treats fractures, while in scope and aim it is entirely novel.

J. C. R.

How to Use the Forceps, with an introductory account of the female pelvis, and of the mechanism of delivery; by Henry G. Landis, A. M., M. D., Prof. of Obstetrics and Diseases of Women and Children, in Starling Medical College. New York: E. B. Treat. 1880. Columbus: R. Jones & Son. Cloth. Pp. 168. Price, \$1.50.

We have read this book with much interest.

The presentation of the relations of the inlet and outlet of the pelvis is novel, and forms the foundation for the explanation of the mechanism of parturition. "The pelvis contains two canals, partially separate at the beginning, and identical at their termination." This statement is illustrated by a diagram, showing the location of the presenting head in either canal, and the manner of progression to the close of labor.

The Davis forceps is the pattern chosen by the author.

His dicta for the application do not differ from those laid down in Cazeaux, except in the treatment of the second and fourth positions, and we do not think the author has made a difficult matter any easier, for it leads to the uncrossing of the forceps' handles after the introduction of the blades, because the female blade was first introduced. This may be avoided by the same care and judgment which the author has so thoroughly enforced on every page of his book. To avoid this very complication with the handles has led to the invention of special forms of forceps, which shows it has always been recognized as an awkward condition of affairs, which ought to be avoided.

The author follows Cazeaux in directing the application of the forceps to the head of the child.

The book is well written, and as a guide to the practitioner will be of value, not so much from the presentation of new doctrines as the vigorous presentation of old ones.

K.

A Treatise on the Diseases of the Nervous System; by Wm. A. Hammond M. D., Surgeon-General U. S. A. (retired list); Professor of Diseases of the Mind and Nervous System in the Medical Department of the University of the City of New York, etc. Seventh edition, re-written, enlarged and improved. One volume; 8vo, pp. 929; 112 illustrations. New York: D. Appleton & Co. 1881.

The first edition of this work was published in 1871, since when six large editions have been exhausted. This alone speaks volumes in favor of the great excellence of Dr. Hammond's work, which seems to be very generally regarded as the best work on diseases of the nervous system in the English language.

Dr. Hammond's views may not always be such as are universally accepted but he nevertheless maintains them earnestly and fearlessly.

As the author is writing a book on Insanity, the chapters on that subject which have appeared in former editions, are now omitted.

Among the new chapters, we notice those on Myxedema; Syphilis of the Brain, Spinal Cord and Nerves; the Symptomatology of Cerebral and Cerebellar Lesions; and Diseases of the Sympathetic System. Large additions have been made to some chapters, notably those on Cerebral Congestion, Locomotor Ataxia, Chorea, Epilepsy, Progressive Facial Atrophy, and Neuralgia.

Paper, typography, press-work and binding, are all excellent.

The Hoosier Doctor, a medicated story; by Karl Kringle. Cott & Hann Printers, Columbus, Ohio. 1881.

This little book is an attempt to portray, by way of novel or story, the lamentable ignorance and charlatanism which prevailed so extensively in the Hoosier and other States, before the intervention of legislative action in behalf of medical science.

The book is by no means pretentious, and certainly has one claim to our regard—its truthfulness. It is fiercely realistic, sufficiently so to satisfy even Mons. Zola—the head and front of that school; but unfortunately for the popularity of the book, its contents do not deal in the kind of realism which suits the prurient taste of the present age. It is entirely too prosaic and matter-of-fact to be very interesting.

Had the author given greater scope to his imagination, he might have made a more readable book, as well as a more telling one. Humbug is a trumpet and unfortunately its success is not restricted to ignorant communities. It wears finer clothes, but is as rampant now as ever, in cities as well as cross roads. But it is not always as plain sailing with charlatans as one would infer from the author's story. We think he might have introduced a series of sharp contrasts, exemplifying the baleful results of ignorance and pretension and the real superiority of medical science, when fairly pitted against each other.

Quackery, whether found in the legitimate ranks of the profession, or as exemplified by the numerous fungi clinging to its skirts, has always been considered a favorite subject for ridicule, and has received many an apparently deadly thrust, but we all know with what little result as to its extermination. If there were no quackery in the profession, there would soon cease to be any out of it.

The literary execution of the book is fine, its language exceptionally good, and it will be read by many an M. D. who will have no difficulty in pointing numerous "Dr. Bellows" and "Dr. Slocums" who have crossed his path. Buy it and read it.

R. M. D.

SELECTIONS.

OBSTETRICS.

THE PEDICLE AFTER OVARIOTOMY.—The two greatest ovariatomists living, Mr. Spencer Wells (and his assistants and successors at the Good Samaritan Hospital, Messrs. Bantock and Thornton), and Mr. Thomas Keith, treat the pedicle after ovariectomy by the intraperitoneal method, the one by the ligature and the other by the cautery; which settles forever the question of the clamps.—*Chicago Med. Jour. and Exam.*

LACERATION OF THE CERVIX UTERI AS A CAUSE OF FALSE LABOR-PAINS.—In the *New York Medical Journal and Obstetrical Review* for August, 1881, Dr. George H. Rohe, of Baltimore, relates two cases that have come under his observation, in which the occurrence of false labor-pains, of considerable severity and persisting for some time before labor actually began, seemed to him to be due to the presence of laceration of the cervix. With a single exception, he remarks, authors make no mention of the relations between the two conditions. The exception noted is Goodell, who relates a case in which pregnancy took place twice in a patient with lacerated cervix, and in which the labor was painful and difficult each time, the patient being confined to bed by her sufferings for a month previous to the termination of the labor. The only other reference to the influence of lacerated cervix upon the course of labor, which he has found in literature, is confined to cases of dystocia due to cicatricial contraction of the cervix. This was not present in the two cases reported.

STRAPPING THE BREAST IN MASTITIS.—Oppenheimer commends the practice of strapping the breast in inflammation of that organ. He says :

I have been unable to discover the name of the originator of this method of strapping the breast in mastitis, but his name certainly deserves to be written high as a benefactor to women. *By the early compression with adhesive straps not a single case of mastitis in my practice has ever terminated in abscess.* No matter how agonizing the pain, it is relieved quite as quickly as it would be with a hypodermic injection of morphia.

Sometimes in mild cases, three or four broad adhesive strips are quite enough to relieve the pain and cure the inflammation. If the inflammation be severe, the entire breast is strapped, leaving only the nipple exposed ; and the strips are allowed to remain unmolested for three or four weeks, when they may be removed piece by piece during the course of a day or two. If the gland secretes much milk, the child may continue to nurse during all of this time, except upon the first day, when the milk should be removed by means of the breast-pump, for I never permit a babe to suckle from an inflamed breast.

The compression very materially modifies the lacteal secretion, and may stop it entirely, but such a result is rare, and even though it should obtain, is not to be compared with abscess. The more thorough and forcible the compression, the more complete the suppression of the function. Three points should be borne in mind when applying the strips: 1st, to push the breast upward and inward to the sternum ; 2d, to apply the straps firmly ; 3d, to make uniform pressure over the whole organ.

There are several ways of applying the strips. My usual method is as follows: Cut $1\frac{1}{4}$ inch strips of common adhesive plaster of the following lengths: Two or three, 24 inches, three or four, 18 inches, four to six, 10 inches. The longest ones are first firmly applied around the base of the gland, and the ends fastened over the upper end of the sternum. The next in size are then applied in like manner. The shortest ones are applied vertically, so as to leave only the nipple exposed.

An easy way of using the adhesive plaster is here suggested: A round piece of plaster large enough to cover the breast is taken, and a hole for the nipple is cut in the center ; radiating cuts are then made all around the plaster in order to make it fit. This is applied firmly to the breast. Either of these methods will answer ; the first I consider the most rational.

When the breast contains pus, the circular straps are applied at the base of the gland as a support, and deep and free incisions made. Small incisions are more harmful than none at all. Poultices are rarely of benefit in these cases, and yet it is astonishing with what desperate tenacity physicians will adhere to their use.

Billroth, in his new work on Diseases of the Female Breast, speaks against

the overdistension of abscesses, but Dr. Stephen Smith has practiced this method, in his wards, with the most gratifying success. After distending the cavity with carbolized water, he applies sponge compresses over the walls, and holds them firmly in place with a bandage. All of these are kept moist with carbolized water. In most cases the walls adhere to one another, and rapid union follows.

If this fails, you will try the semi-diurnal washing of the cavity with warm carbolized water, and firm compression with adhesive strips, and then wonder at the wherefore, or, in medical vernacular, the *rationale* of the rapid cure.—*Indiana Medical Reporter*.

SORE NIPPLES.—Prof. Barker, New York, recommends a solution of *nitrate of lead* in *glycerine*—10 grains of the former to an ounce of the latter—after a poultice has been applied. He also recommends it as a prophylactic.

SURGERY.

LIVER WOUNDS.—The following extract from the “Surgical History of the Rebellion,” will be read with interest:

Out of 173 cases, 59 of which were uncomplicated or real liver wounds, and 114 complicated cases, 34 of the uncomplicated proved fatal and 25 recovered. Out of the 114 second class or uncertain liver shots 74 proved fatal and 37 recovered. Of the 25 recovering of the first class 14 were undoubted liver shots and 11 were doubtful as to the nature of the injury. Of the 37 of the second class that recovered 18 were undoubted and 19 doubtful.

ECZEMA OF THE SCALP.—Vidal (*Progres Medical*), claims that in some cases of eczema of the scalp, complicated by impetigo, lotions of a decoction of walnut leaves, besides evening and morning frictions with glycerated starch and oil of cade, have proven of great value.

ULTIMATE EFFECTS OF TRACHEOTOMY.—In a note read at the Academy of Medicine (*Bulletin*), Dr. Mongeot drew attention to the ultimately fatal results of tracheotomy. He had for a long time investigated the subject, and had come to the conclusion that children who had successfully undergone tracheotomy, and had worn a canula for a more or less prolonged period, did not live to attain their majority. He had long made inquiries among a great number of practitioners, and had only succeeded in discovering five or six adults who had undergone this operation in their infancy; while military surgeons, interrogated for more than twenty years past, all avowed that in examining conscripts they had never met with the scar charac

teristic of tracheotomy. He suggests further investigations on the subject by the military boards of Paris, seeing that the operation is performed about thirty-five times annually on hospital children.—*Med. Times and Gazette*.—*Med. News and Abstract*.

HOT WATER TREATMENT OF EPITHELIOMA.—Dr. A. H. Phinney (N. Y. *Record*) reports a case of epithelioma, on the left temple. The diagnosis was confirmed, and tumor cut out, by Prof. Donald McLean, of Ann Arbor, in Nov. 1876. The tumor soon returned, and in a year had grown to large dimensions, being three or four inches square and reaching from the ear forward, including the conjunctiva, and interfering with mastication. At this stage, the use of hot water was commenced. It was applied four or five times a day, as hot as could be borne. This was continued for six months and resulted in a complete cure. Patient has remained well during three years since.

The doctor thinks that the cancer cells were destroyed by the high temperature, or else that the morbid products were removed by the excessive "stimulation of the vaso-motor system."

CHAPMAN'S COPAIBA MIXTURE.—

Copaiba	℥iv.
Sweet spirit of nitre	℥iv.
Powdered gum arabic	
" sugar	aa, ℥j.
Compound spirit of lavender	℥ij.
Tincture of opium	℥j.
Distilled water	℥iv.

Dose, a tablespoonful three times a day.

ELASTIC ADHESIVE PLASTER.—Dr. W. P. Morgan, in a communication to the *Boston Med. and Surg. Jour.*, states that he has been trying to obtain an elastic adhesive plaster, that when attached to the skin should yield to the movement of the muscles and parts beneath without the sensation of stiffness or an uncomfortable wrinkling. Not being able to obtain an article of this description, he procured some India rubber, and giving it a coat of plaster such as is recommended in Griffith's Formulary under the name of Boynton's adhesive plaster (lead plaster one pound, rosin six drachms), he found the material he wished. After using it as a simple covering for cases of psoriasis, intertrigo, etc., he extended its use to incised wounds, abscesses, etc., and found it invaluable.

Placing one end of the strip of plaster upon one lip of the wound, and then stretching the rubber and fastening the other end to the opposite lip of the wound, there is perfect apposition of the several parts, the elastic rubber

acting continually to draw and keep the parts together. When unable to get the sheets of rubber one may use broad letter-bands (sold by stationers) by giving them a coat of plaster.

ERYSIPELAS; TO CHECK SPREAD OF:—Heppel recommends painting, for half an inch around the affected part, with a ten *per cent.* alcoholic solution of carbolic acid.

FOR TINEA TONSURANS.—Shave the head, and apply, night and morning :

R.

Vaselin.....	3iss
Boric acid	gr. xv.
Flowers of sulphur.....	3ss. M.

—*Le Prog. Medical.*

DIACHYLON OINTMENT (as improved by Prof. Duhring):—Water, two parts; best Lucca olive oil, six parts; freshly precipitated (from acetate of lead) pure white hydro-oxide of lead, one part. Mix well. Should be stirred for two hours over a hot water bath, near the boiling point, and cooled, with constant stirring, until the proper consistency is obtained.

REMOVAL OF MEMBRANA TYMPANI:—Dr. Adams, Prof. of Otology, in the Medical Department of Denver University, in an article in the *Rocky Mountain Medical Review*, urges the desirability of cutting out more or less of the drum membrane in cases of closure of the Eustachian tubes, dry catarrh of the middle ear, tinnitus aurium, etc. Through this opening, inspissated mucus can be removed, medicinal applications made, or bougies passed.

He usually dissects out two triangular segments: one above and one below. Sometimes he removes the entire membrane, except a peripheral ring and an oblique strip running from above downward and backward, which includes the manubrium of the malleus. The openings are kept patent by means of pledgets of absorbent cotton retained in them, cotton being introduced also into the canal to keep out dust. As soon as treatment is suspended, the membrane rapidly reproduces itself and the openings close.

We have space for a report of one case as given by him:—

J. S., fortyfive years of age, applied for relief from deafness in the right ear. After examining this ear I requested him to turn around, that I might examine the one on the opposite side. He protested, and said there was no necessity for that, as he never recollected hearing out of the left ear, that he came to me to have the *right* ear treated, that he was very much afraid of losing his hearing on that side, and if he did he should be totally deaf.

I.—3.—6.

After explaining to him the necessity of an examination of both ears for purposes of comparison, he, however, consented.

The membrane in this ear appeared to have lost all vitality, was retracted and shrivelled, and in the anterior segment there was an indenture, as though something from behind was drawing it in; in places it was atrophied and assumed more the appearance of tissue paper than anything else. On finishing the examination I told him I could certainly benefit his hearing on the right side, and that I also *might* be able to give hearing in the left ear if he would allow me to perform an operation; that I could not promise anything positive, however, but that I should like to try. He laughed and said I might as well try to make a stone hear. That he was now upwards of 45 years of age, and had never heard anything with the left ear. He finally consented to the operation, which consisted in excising the entire membrana tympani with the exception of the *annulus tympanicus*, and a narrow strip, corresponding to the line of insertion of the manubrium of the malleus. The tympanum was found to be partially filled with hardened mucus and other inflammatory products, which were removed by instruments and warm injections. Warm bicarbonate of soda solutions were poured into the ear while he lay upon the opposite side, and allowed to remain there for from five to ten minutes. After continuing this treatment for a few days, resolvent and stimulating applications were made to the middle ear, and subsequently the membrane allowed to heal up. Within ten days he could hear as well with the left as with the right ear, which had also been benefitted. The excised portions were reproduced, and the new membrane looked very much more like a normal one.

THE CHARACTERISTIC APPEARANCE OF WOUNDS OF THE INTESTINES MADE DURING LIFE.—(W. F. Whitney, M. D., Curator of the Warren Anatomical Museum, in *Boston Medical and Surgical Journal*). The difficulty, at times, with which wounds of the intestines are found while the organs are *in situ*, and the frequency with which the intestines are wounded during their removal from the body even by the most skillful examiner, renders a knowledge of the appearances presented by wounds made before death of great value to the pathologist.

The characteristic feature of ante-mortem wounds is that the edges are covered by a protrusion of the mucous coat. A consideration of the arrangement and action of the coats of the intestine will show why this would be expected, and a simple experiment will demonstrate it. The mucous coat is loosely connected to the muscular coats, and movable upon them to a certain extent. If all the coats of the intestine are divided, the edges of the wound will gape from the retraction of the cut muscles, and the lax mucous coat is forced through the opening by the peristaltic movement as far as its attach-

ments will permit, and curls back over the edges of the wound through the action of its elastic fibres.

This extrusion of the mucous coat can be readily seen if the abdomen of an animal is opened before the peristaltic motion has ceased, and a small cut be made into the intestine. Once over the edges of the wound the membrane is not retracted again, and if the experiment has been performed upon a living animal it becomes adherent in its new position from the inflammatory action which is set up. A few hours are sufficient for this to take place. In the case of one rabbit operated upon, only twelve hours elapsed before its death, and the adhesion was found to be quite firm.

Besides this position of the mucous coat, there is a slight thickening of all the coats immediately in the wound from an infiltration with serum and new cells. There is no difference in the appearance of wounds following rupture from violence, and in wounds produced by cutting.

PROPHYLAXIS OF SYPHILIS.—Dr. J. Mathews Duncus, in his address before the Obstetrical Society of London, says:—I wish, at this early time, to put in a plea for another prophylaxis, the legislative protection from syphilis, especially of women about to be married, and of doctors. It is not rare to meet with instances of carelessness on the part of bridegrooms so gross as to merit the imputation of criminality; innocent women being, as a result, infected with syphilis, and thereby killed or maimed for life, and their offspring in a like terrible plight. No doubt such tragedies are sometimes enacted in spite of due care on the part of the husband; but many are the results of culpable thoughtlessness or culpable neglect. Again, in my own medical circle, I have lost, through accidental surgical infection with syphilis, several medical brethren whose lives were very valuable. One of them, an accoucheur, did not survive attendance on a syphilitic lying-in woman above a year and a half. Now, it appears to me that such proceedings as the marriage of a man who knows that he has recent and active syphilitic disease, should be taken cognisance of by the law, and regarded as a crime not much less than manslaughter; and the same is true of such proceedings as that of a lying-in woman who, knowing she has syphilitic sores on her pudendum, fails to warn her accoucheur of the circumstance. Disease and death coming in this deliberately careless way, surely involve not less horrible and heinous criminality than any other offence.—*The Lancet*.

MEDICINE.

THE COUGH OF CONSUMPTION is treated, by M. Rinde, by iodoform. He gives from one-fourth to one-half a grain four or five times a day.

LUTON'S EXHILARANT MIXTURE.—Dr. Luton, of Rheims, has found that the following mixture produces a highly exhilarating effect, somewhat similar to that of nitrous oxide, especially in excitable temperaments:

R. Tincture of ergot. gr. lxxv.
 Sol. of phosphate of soda ($\frac{1}{8}$). ʒss.

Take in a quarter glass of sugared water.

This produces "a lively gaiety and uncontrollable hilarity."

CANNABIS INDICA IN MIGRAINE.—What the bromides and belladonna are to epilepsy, cannabis indica is to migraine. The principle of treatment laid down is to maintain, by the use of small doses of the agent, a constant influence upon the nervous system for a long time, the same as is required in epilepsy by the use of the bromides. At first, as a matter of course, no appreciable effect is observed, and not until the use of the remedy is persevered in for many weeks, and the nervous system kept under its influence for considerable time, will the patient find an appreciable diminution in the severity and frequency of the attacks. It is well to commence with one-fourth grain of the extract, before each meal, for the first fortnight. This dose may be increased to the third of a grain for the second fortnight, to be augmented to a half grain at the end of four weeks. This amount will generally be sufficient, and should be faithfully continued for several months. Success here is only obtained by persevering effort.—*Chicago Med. Jour. and Exam.*

"PROOF OF THE PUDDING IS IN THE EATING."—The old adage makes a happy hit occasionally—in this case our leading physicians trying the intrinsic value of a preparation on themselves before recommending it to their patients. Dr. A. M. Powell, Catawba, N. C., Dr. Howard S. Pain, Albany, N. Y., and numbers of others write that they have tried Powell's Beef, Cod Liver Oil and Pepsin (the superior food tonic, nutritive and digestive), on themselves, with most beneficial results, and recommend it with pleasure to others.—*Bulletin.*

JABORANDI IN ASTHMA.—Dr. Thomas reports fifty cases of asthma treated with jaborandi, all of which were benefited and some, he thinks, cured. He gives four-drop doses of the fluid extract twice during the day and double quantity on retiring. It produces free flowing of mucus, and also relaxes muscular fiber.—*Chicago Jour. and Exam.*

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COTT & HANN, Publishers, Columbus, Ohio.

THE JOURNAL.

THE JOURNAL has met with a more than flattering reception. We have not space for a tithe of the complimentary remarks. To all our exchanges we return thanks for their cordial greeting. The editorial in the *Boston Medical and Surgical Journal* expresses the situation so well, with its mutual responsibilities, that we venture to reproduce a portion of it:—"We believe the Ohio Medical Society will not regret this step, which it is, if our memory serves us, the first State society to take. The arrangement adopted is practically on a small scale that existing between the British Medical Society and its Journal, a connection which has been for a number of years entirely satisfactory to all concerned. The adoption of such an arrangement for publication was urged, as our readers will remember, upon the American Medical Association year before last at its meeting in New York by its then President, Dr. Sayre, and we have ourselves called attention to the advantages of such a method of publication from a considerably earlier period.

Some drawbacks have been pointed out and others may present themselves, and the success of such an arrangement must, of course, depend largely upon the vigor and tact of the occupant or occupants of the offices of secretary and editor.

We shall watch with interest the results of the connection between the Ohio Medical Society and the OHIO MEDICAL JOURNAL, which we have little doubt, unless some unforeseen complication should arise, will result in the infusion of new life and activity into each. The members of the Society, on the one hand, will at least be sure of prompt publication and of a larger and more critical audience; the JOURNAL of the Society on the other, will have a certain *clientele*, each one of whom will be at once a reader, a subscriber, and a possible contributor, having a personal and a general interest in its welfare and improvement."

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H. G. Landis, Progress of Obstetrics and Gynecology.

W. C. Chapman, Present Status of Therapeutical Inquiry.

D. H. Brinkerhoff, Exanthemata.

(Others will be announced from time to time, as they are sent in.)

THE *Sanitary News* is one of our new exchanges. It is published at Cincinnati, but is edited at Hamilton, by Drs. R. C. S. Reed and C. A. L. Reed. Its sub-title is *The Health Journal of the Mississippi Valley*, and it is devoted to sanitary matters. Contains 32 pages of reading matter every month, subscription price one dollar *per annum*.

The *News* is well gotten up, in neat and attractive style, and is carefully edited. Its editorial department is one of its strongest features, and we always turn to it first on receipt of the journal. It deserves in every way the cordial support of the profession.

THE *Microscope* is the title of a new medical journal published at Ann Arbor, Mich., and edited by Chas. H. Stowell, M. D., and Louisa Reed Stowell, M. S.; both of whom are connected with the University of Michigan. It is an illustrated bi-monthly journal of 32 pages, subscription price, \$1 *per annum*. It is a very neat little journal, and every doctor who owns a microscope should subscribe for it.

THE PRESIDENT.—A month ago, as we wrote, the prospects were bright for the President's speedy recovery, although all cautious surgeons agree with the statement, attributed to Prof. Frank Hamilton, that the President would be out of danger only when well.

Although the surgeons in charge think they have definitely located the ball, there is no positive assurance that such is the case, nor is it clearly known what structures have been wounded. The steady loss of flesh and decline of strength seem entirely out of proportion to the amount of suppuration. Still, with Agnew and Hamilton in charge, we feel perfectly satisfied that all has been done in the way of diagnosis and treatment that human experience, skill and wisdom could accomplish.

As we go to press, the Nation's patient, after having on Friday almost reached the point where recovery is impossible, seems to be slowly gaining ground. The fall in the pulse-rate, and the increased strength of the heart's action, are at least quite encouraging. It is possible that this improvement is due to stimulation, and will prove transient; nevertheless, the prospect seems better than three days ago, when the only hope that remained was that which is only extinguished with life.

THE INTERNATIONAL MEDICAL CONGRESS.—This Congress, in the perfection of all its arrangements and details, and in the exactness with which its programme was carried out, seems to have far surpassed its predecessors. All the medical resources of magnificent London were compelled to make tribute, and the three thousand delegates from the world were entertained as they were never entertained before. All who were present unite in bestowing unlimited praise upon the committee of arrangements.

We cannot offer even an abstract of the addresses, which are before us in full; while our heart is filled with envy of our more fortunate brethren, who were enabled to listen to discussions participated in by such men as Pasteur, Bastian, Lister, Ericksen, Thompson, Bigelow, Savory, Valkman, Esmarch, Verneuil, Gull, Lancereaux, and hosts of others whose names are so familiar.

CORRECTIONS.—By an oversight, one name was omitted from the Faculty of the new medical college at Cleveland, in our last issue, viz.: Proctor Thayer, M. D., Professor of Clinical Surgery, Principles of Surgery and Medical Jurisprudence.

J. A. Myers, M. D., of Shelby, paid his initiation fee at the last meeting of the Society, and his name should have been marked with a "*" in the list of new members.

NOTES AND COMMENTS.

BIRTH MARKS.—The following good story is told of a physician of Dayton, Ohio: The doctor was recently attending a case of labor in the family of one of his patrons, who, though a very excellent man, is a little slow in the payment of his medical bills. Immediately after the birth of the babe, the father nervously asked,—“Doctor, is the baby marked?” “Yes,” quietly replied the doctor, “It is marked ‘C. O. D.’”

It is needless to add that the bill for that baby was promptly settled.

MARC COOK—whose book on “The Wilderness Cure,” in which he represented himself as cured of consumption by a sojourn in the Adirondacks, lead so many invalids to those mountains this summer—recently died, *of consumption!*

ANTISEPTIC OVARIOTOMY.—Keith’s adoption of the antiseptic system in ovariectomy, a few months ago, was hailed with delight by the advocates of Listerism. After losing two patients, from undoubted carbolic acid poisoning, he has recently abandoned it. He now reports forty-six cases, without the spray, and only one death.

Lawson Tait also reports thirty-one successive cases, without a death, where none of the Listerian details were employed.

Both treat the pedicle by the intra-peritoneal method; the one by the cautery, the other by the ligature.

In some medical colleges, where there are more chairs than professors, the former are “doubled-up,” and all is well.

There is a college in Ohio, at the present time, however, which has more professors than chairs, and so the former are “doubled-up;” thus we find two professors of, surgery, clinical surgery, clinical medicine, pathology, State medicine, obstetrics, materia medica and therapeutics, and diseases of children.

ANNUAL MEETING OF THE AMERICAN SURGICAL ASSOCIATION.—The American Surgical Association will hold its first regular meeting at the Oriental Hotel, Coney Island, September 13th, 14th and 15th. Papers are promised by several gentlemen.

See publishers’ notice on third cover page.

THE OHIO MEDICAL JOURNAL.

Vol. I.

OCTOBER, 1881.

No. 4.

COMMUNICATIONS.

CHLORAL IN CEREBRO-SPINAL MENINGITIS.

BY GEO. GOODHUE, M. D., DAYTON, OHIO.

Read before the Montgomery County Medical Society, Sept. 2, 1881.

Chloral has been generally known by our profession only a few years, comparatively, yet it is one of the most common remedies employed in a vast number of nervous complaints.

It is often combined with other sedatives for the relief of pain and the production of sleep; but never, so far as I know, has it been relied upon as the only remedy to relieve pain so severe as that in cerebro-spinal meningitis, and to produce the sleep and quiet so necessary for the relief and repair of inflamed structures in such close proximity to the brain, until so employed by myself about eight months ago.

Although the results obtained do not accord in all respects with the teachings of most of our authors, yet I claim no discovery made, or important therapeutic principle established. Individual idiosyncrasy in the use of chloral is much less frequently noticed than in opium, and many other powerful drugs; but still it would be manifestly unwise to rely implicitly upon deductions drawn from the treatment of a single case.

Cerebro-spinal meningitis is a disease of great fatality, and its treatment is unsatisfactory. Opium has its advocates; but having frequently seen its injurious effects when employed in cerebral disorders accompanied with congestion, I disliked to use it, and adopted in its stead chloral, for reasons which I will presently state. For convenience I will consider the subject under two heads: 1st. The theoretical effects of chloral, or the reasons that led me to adopt it as my remedial agent. 2d. Its actual effects, as produced in the case treated, and the general conclusions drawn therefrom.

In considering the first division of the subject, let us notice those symp-

toms of cerebro-spinal meningitis which the drug employed, whatever it may be, should alleviate or remove. The most distressing feature noticed in this disease, from the onset of the attack, is the pain in the head, which is often so severe that the sufferer would welcome death. As this pain is mainly due to congestion, it would seem more rational to administer some agent that would tend to relieve the congestion than to employ a pure anesthetic. Chloral is acknowledged by all to be our most powerful hypnotic, and must then relieve cerebral congestion; for it has been demonstrated by Prof. Hammond, and others, that in sleep the brain is anemic.

It is not claimed that chloral is a pain-relieving agent in the sense and to the extent that opium is; but still it is unquestionably to a degree anesthetic. Chloroform, as has been determined by Anstie's experiments, is anesthetic when taken into the stomach, as well as by inhalation. Liebreicht and others claimed that the soda of the blood decomposed the chloral and chloroform was produced; and thus was explained its anesthetic action when taken by the stomach. But until physiological chemistry has become more of a science we must wait for the exact solution of the problem. While it is doubtful if chloral undergoes such a transformation to any great extent, still its pain-relieving quality is fully established.

As this distressing symptom subsides we would expect sleep to follow, and nothing can be comparable to Nature's own tonic in maintaining the strength in this exhausting disease. The pain is so excessive that the patient is wholly unable to remain quiet in bed, but is continually tossing from side to side. If a hand or a foot were highly congested or inflamed, we would insist upon the patient keeping the part quiet, as a measure indispensable to recovery. It is even more essential that the inflamed brain be kept quiet, both physically and mentally.

Thus we see three very prominent features in the disease—pain, somnia, and constant movement of inflamed parts—that we would expect to be relieved by chloral; but there is one other condition which must be combated, high temperature; and here again we find chloral to act in the right direction. Fothergill found that large doses of chloral given to rabbits would reduce temperature from 10° to 15° . Not so great a reduction, but still a decided fall, has been noticed when chloral in full doses has been administered to the human subject.

In this disease, obstinate constipation is the rule. Chloral is generally considered to have no effect upon either the secretive or digestive organs, but some authors it is thought to have a slight laxative effect; surely, it does not constipate like opium, which tends to check all of the secretions, except those of the skin. This action of opium seems to me to be a strong contraindication to its use.

For the above reasons I concluded to employ chloral; and that I might

not confound the effects of chloral with those of other drugs, I administered it alone, with the exception of one dose of bromide of potassium and morphia, when the patient was first brought under my charge.

An objection to this treatment presented itself to my mind, in the depressant action of chloral upon the respiratory center, and the cardiac ganglia; but, nevertheless, I concluded to begin its use, watching the patient closely, so that if any signs of dangerous depression in these centres should appear, it might be combatted by stimulants.

Having stated the theoretical reasons which led me to employ chloral as my remedial agent, I will enter upon the second division of the subject, and describe the case and the actual effects produced by the chloral, as well as the general conclusions deduced therefrom. The patient came under my treatment Nov. 28, 1880. He was a young man of German parentage, nineteen years of age, slight of build, a meat peddler, very industrious, and in every way temperate; could assign no cause of disease. He had been sick two or three days before saw I him. The second day he called in a doctor, who told me that he complained of chilliness at times and quite severe headache, and with high temperature. He had given bromide of potassium and 100 grains of quinine during the 36 hours preceding my attendance. When I first saw him, he complained very much of ringing in the ears and deafness; vision much impaired, head thrown back, countenance anxious, abdomen retracted. Pain in the head was so severe that he could not lie still in bed, and his groans and shrieks resounded throughout the building.

I gave him 80 grains of bromide of potassium, and hypodermically fifteen minims of Magendie's solution of morphia. This had no appreciable effect, and was not repeated, chloral after this being the only drug employed.

I began with fifteen grains of chloral, and in half an hour I gave twenty more, and so continued with twenty grains every half hour until I had given nine doses, or three drachms of chloral. He then went to sleep and remained in that condition five hours. When he awoke he had a great deal of pain and I again commenced with the chloral in twenty grain doses, and made it a rule throughout the remainder of his sickness to give this amount every half hour when the patient manifested signs of pain or great restlessness. I gave it largely diluted with water most of the time, but when unconscious he showed his dislike to the taste of the drug and sometimes resisted its administration. It was then given in concentrated solution. The amount of chloral given during the twelve days, before convalescence was fully established, amounted to 3015 grains; and the fact that such an amount of this powerful drug could be administered and nothing but beneficial effects produced, has made this case one of special interest to me. It shows that chloral is not cumulative, and that in certain conditions of the system an

amount is tolerated which would probably be attended with fatal results in other conditions.

I gave this drug to my patient wholly, disregarding the rules of dosage set down by most of our authors. The congestion of brain was great and consequently a great amount of the drug was required to relieve it. When a symptom-medicine is employed, I believe it to be a good rule to continue its administration until the result sought is obtained, unless some element of danger compels its withdrawal. Chloral was the symptom-medicine employed in this case, and it was used until the desired effect was secured.

PULSE, RESPIRATION AND TEMPERATURE FOR EACH DAY OF THE DISEASE.

DAY.		M.	F.	DAY.		M.	F.	DAY.		M.	F.
1st	P. R. T.		120 106 102	6th	P. R. T.	94 22 100	102 24 100½	11th	P. R. T.	110 32 102	88 28 98½
2d	P. R. T.	75 32 101	90 29 104	7th	P. R. T.	96 22 102½	108 24 103	12th	P. R. T.	100 28 100	108 101
3d	P. R. T.	120 36 104½	130 34 103½	8th	P. R. T.	112 28 102	112 32 104½	13th	P. R. T.	100 28 98	92 25 98
4th	P. R. T.	140 36 104½	130 34 102½	9th	P. R. T.	108 24 102½	108 32 102	14th	P. R. T.	76 98	98 99
5th	P. R. T.	126 30 100	110 28 101	10th	P. R. T.		100 27 101½				

The respiration, pulse and temperature were taken twice daily. The respiration reached its highest point at 36 and its lowest at 22, with perhaps an average of 28. The pulse marked the highest at 140 and the lowest at 75 per minute, with an average of 110. The temperature ranged from 106° to 99°, only once reaching either of these limits; the average being between 102° and 103°.

I have stated that with the exception of one dose of bromide of potassium and sulphate of morphia, given immediately after the patient came under my charge, no drug was used except chloral; but other agents, which undoubtedly contributed their share to the result obtained, were employed as the condition of the patient from time to time suggested. The ice cap was

frequently used, and always applied to the head at least a half hour previous to giving a cold sponge bath.

The temperature on the first day was 106° . No antipyretic was given, save zij of chloral which, in twelve hours, reduced it to 102° , and in twenty-four hours to 101° . On the third day temperature reached $104\frac{1}{4}^{\circ}$. Thinking it might be due to slight constipation, noticed during the first few days, an enema was given, when the temperature fell one degree. This was the only time that an enema was given or anything administered to effect his bowels, as constipation was not again noticed, at least one passage occurring each day afterwards. On the fourth day the temperature again rose to $104\frac{1}{2}^{\circ}$, and remained at that point for several hours. Likewise on the 8th day it rose to a similar height. On each occasion it was reduced three or four degrees by a cold sponge bath.

Milk constituted his entire diet, from time of attack till convalescence was fully established. It was made a part of his treatment to give him milk at regular intervals and in as great amount as his stomach would bear. The quantity which he took daily was not measured by drachms but by pints, and not once did his stomach refuse to perform the work imposed upon it; showing that chloral, even in such large doses, and frequently repeated for twelve days, did not interfere with nor impair in the least the functions of this important organ.

The respiration was much more frequent than normal, and the pulse quite high and weak throughout the disease; but as we always expect this to occur in maladies so exhaustive as cerebro-spinal meningitis, it caused no special alarm and it was not deemed necessary to administer stimulants of any kind. I could not see any evidence to lead me to the conclusion that chloral had any appreciable effect upon either of these functions. On those days when the drug was given most freely, there seemed to be no greater depression than on those days during which the least was given. In looking over the record of severe cases of this disease, I find the respiration and pulse to accord generally with the record of this case. Authors speak very emphatically of the depressant effects of this drug on the respiratory centre and ganglia of the heart, and why this effect was not produced by its heavy administration in this disease is a question whose solution is involved in some doubt.

Many drugs impair the functions of the stomach so that only small quantities of food are tolerated. Chloral does not interfere in the least with this organ, and large amounts of food are taken into the stomach and assimilated; and this nourishment, together with the relief of pain, muscular exertion and mental worry, effected by the drug, may have neutralized its depressant tendency and been a compensation in full for the enfeebling action usually attributed to chloral.

His urine was generally of a slightly acid reaction; specific gravity from 1018 to 1022; traces of albumen generally found; quantity about normal, no odor of chloroform. On the fourth day he ceased to void his urine, and for eighteen days I was compelled to employ the catheter. Whether chloral played any part in producing the retention is uncertain; this condition, sometimes, though rarely, occurs in this disease, when other courses of treatment are pursued.

Before he came under my care the patient was thought to be suffering from some malarial poison, and hence the hundred grains of quinine were prescribed. The old theory that meningitis has its exciting cause in malaria is now generally abandoned, and it is hardly necessary to notice that the ill effects of the administration of quinine would prove conclusively its non-malarial origin. The greatest danger from the free administration of quinine, as stated by some of our authors, is irritation of the cerebral meninges. Whether the quinine caused or intensified the disease in this case, is a question of much interest to me. With this question may be associated the fact that although 100 grains of quinine had been given him during the thirty-six hours before he came under my charge, and thirty grains only six hours before, yet his temperature was 105°. This would lead one to question its efficiency as an antipyretic, in this disease, and renders the belief more plausible that increased irritation of the meninges may have been produced, which neutralized its usual antipyretic effect.

The therapeutic action of chloral in this disease, as exhibited by its free use in the case which I have detailed at some length, may be summed up as follows :

1st. It relieves the severe pain, either mechanically, by removing congestion, or as a true anesthetic, or, more probably, by a combined action in both directions.

2nd. As a sequence of the relief of pain, muscular quietude is produced.

3rd. By its hypnotic influence, abundant and refreshing sleep is obtained.

4th. By its antipyretic influence, temperature is reduced.

5th. It produces no constipation, but probably has a slight laxative effect.

6th. It does not disorder the stomach or materially alter any of the secretions.

7th. It produces no appreciable effect on heart or respiration.

8th. It is not cumulative in the system.

I do not maintain that this method of treatment is devoid of danger, for I am fully aware of the treacherous character of the drug in hand.

We also know the terrible fatality attending this disease in its severer forms; and if there is strong hope of beneficial results to be derived from heroic doses of even the less innocent drugs, their employment is justifiable here if anywhere. I do maintain that this method of treatment is, in the main,

theoretically correct, and in its employment—though only in one case—I have found practice to accord with theory. A friend, who witnessed this case while under treatment, wrote me a few weeks since that he pursued this same treatment in the management of a case of the same disease, with very satisfactory results.

This is the second case and second recovery, so far as I know, with chloral as the only medicinal agent. Still it would, of course, be highly illogical to infer a like issue in every case treated in this way, and we would be unwarranted even in placing very great confidence in its remedial power. Two cases are not enough to establish the correctness of any theory. Hasty conclusions drawn from a narrow field of facts have been an impediment to the advance of medical science.

I simply place before you the ungarnished facts, and leave it to you to deduce your own conclusions of its remedial power from cases treated in a similar way, if these two successful results shall inspire you with sufficient confidence in the efficiency of this drug to lead you to desire a fuller investigation.

ALBUMINURIA WITHOUT CONVULSIONS.

BY C. A. KIRKLEY, M. D., TOLEDO, O.

Mrs. B., aged 34, born in Michigan, applied to me at my office April 9th, 1881. She last menstruated the first week in September, and missing her menses the following month, considered herself pregnant. Presuming such to be the case, she was in the beginning of the seventh month of her pregnancy, the third since her marriage, ten years ago. The first she miscarried at the third month, and the second resulted in premature delivery at about the eighth month; child dead. She said she came near dying each time, but could give no information as to the cause of her trouble. There was general edema, bowels constipated, urine scanty and high colored, pulse 68, full and strong, and a constant desire to urinate. These symptoms began at about the second month, since which time there had been considerable headache at the base of the head. For the last three or four weeks it had been almost constant and quite distressing, accompanied with nausea and precordial oppression.

Half an ounce of bitartrate of potassa, in water, was ordered to be taken every three hours, until free catharsis should be produced. She was requested to send a specimen of her urine for examination the following day, which she failed to do.

On the 11th, at 9 A. M., I was called to see her. The bowels had been freely evacuated, and the urine was more abundant, but the symptoms were

more aggravated. The urine was almost solid albumen; pulse 60, full and rather hard. I immediately bled her 48 ounces. The venesection was begun with the intention of making an impression upon the system. The headache and distress at the stomach entirely disappeared during the bleeding, and she expressed herself as feeling better than for a long time previous. Calomel, gr. xx., and morphia, gr. $\frac{1}{4}$, were given at once, and the following prescription ordered:

R. Potass. acet.	3vj.	
Spt. nit. dulc.	f3vj.	
Tinct. digitalis.	f3j.	
Aq. dest. ad.	f3vj.	M.

Sig.—A tablespoonful every four hours.

A drachm of bitartrate of potassa, in water, was given two hours after each dose of the mixture. A milk diet was also ordered.

I saw her almost daily until the 27th. During the first week there was a slight diminution in the quantity of albumen, and no headache or distress at the stomach. During the remaining days, however, the albumen did not diminish in the least, and there was occasional headache and stomach distress, which always disappeared when a quarter grain dose of morphia was given. Lithia and other alkalies were given from time to time, as occasion seemed to require.

Labor began about 2 P. M. on the 28th, and in two hours the os was dilated to the size of a silver half dollar. There had been no headache up to this time, but before I left the room the patient complained of headache and distress at the stomach. A quarter grain dose of morphine was given, but without relief, and at 6 P. M. another. Labor, in the meantime, had been progressing, and in the intervals of pain she would get refreshing naps, always awaking perfectly conscious upon the return of pain. At 8 P. M. the pain ceased, and the patient apparently slept until 12 M., when the head was found to be against the perineum, and she was delivered of a dead child in a very short time. During this time the pupils were natural and responded promptly; breathing quick and natural; pulse 70, full, soft and regular; temperature 98.5, and considerable sweating: no more, however, than frequently results from effort. She could not be aroused, but aside from this her condition was not especially alarming.

Little was done for her during the rest of the night. There was profuse sweating, and catheterization at 6 A. M. showed that not more than half an ounce of urine had been secreted since delivery, at the completion of which a small quantity was withdrawn. During the day the quantity of urine was slightly increased, but there was no perceptible diminution of albumen. There was intense itching over the entire surface of the body. She used the right arm and leg more than the left. The pupils were normal and re-

sponded promptly, and she was partially conscious, speaking a word now and again, and protruding the tongue when asked to do so. Her gradual improvement during the entire day led us to hope that the kidneys might yet perform their function. This was a vain hope, as the melancholy ending shows. There was no improvement that night, and the following day (30th) and night she gradually failed, and died on the morning of May 1st.

Quinia, whiskey, carbonate of ammonia, caffeine, citrate of lithia, and the alkaline mixture given above, were among the remedies used as indicated. On the morning after delivery she was bled 16 ounces, without any appreciable effect. No remedy did any good whatever.

Such was a case of uremic coma without convulsions, the coma beginning on the 28th, at 7 P. M., when labor ceased. There was a hope for four or five hours that the condition was the result of the morphia. Half a grain had been given in two doses, the first four hours previously, when convulsions were certainly impending. The most prominent symptoms were headache at the base of the brain, and that peculiar distress at the stomach which has been present in every case of eclampsia which it has been my misfortune to meet, and which, no doubt, results from the terrible impression upon the nervous system. Two days before labor began, the edema entirely disappeared. Patient remarked on the morning of the 26th that she had "collapsed" during the night. This, however, was not accompanied by any increase of urine or diminution of albumen.

My own experience has been that there is slight edema or none at all in all cases of eclampsia. Especially has this been true of the fatal cases, and trouble has invariably followed where basilar headache and stomach distress have been concomitant, unless relieved by bleeding or other means. Uremia is not only a blood poison, but the nervous system is completely overwhelmed in severe cases. Its action is that of a powerful narcotic. The pathological seat of the disease is within the kidneys, and results in the non-elimination of urea. The kidneys may be either congested or inflamed. If congested, their function is restored after delivery, and if inflammation exists recovery will not be so prompt, if it occurs at all.

Freirichs was the first who gave particular attention to the albuminuria of pregnancy. He considers that it depends upon a changed blood crasis, and a mechanical obstruction to the venous circulation within the abdomen. The blood of a pregnant woman is richer in fibrin, and more watery, the red corpuscles diminished, and the white increased. This condition results from the demand made upon the maternal blood for the development and growth of the fetus. Lever says positively that pressure by the gravid uterus upon the renal veins is the cause of the kidney disease. Rosenstein holds the same view, as do many members of the profession. The abdominal circulation is probably more or less retarded, but direct pressure upon the renal

veins is an anatomical impossibility, because the uterus would have to be bent at a decided angle above the inlet of the true pelvis. This would be prevented by the round ligaments. The left renal vein is the longest, and usually passes in front of the aorta, and, according to Heller, "usually crosses the vertebral column above the second lumbar vertebra, and is sometimes concealed by the pancreas." Such was found to be the case in a large number of post-mortem examinations. It is a well-known fact that abdominal tumors, ovarian, for example, attain a much larger size than the pregnant uterus, without producing any renal disease.

Though intra-abdominal pressure may be so great as to diminish the urinary secretion, albuminuria seldom or never exists. We are compelled to admit that all theories as to the cause of the kidney hyperemia or inflammation are untenable, and the pressure theory the most untenable of all. In the case reported, I believe the kidney affection to have been concomitant, having been developed during or even before pregnancy, and also that the result might have been the same had pregnancy not existed at all.

*A CASE OF SUB-ACUTE TETANUS; THE INJURED PART
FIRST AFFECTED; TARDY APPEARANCE
OF TRISMUS.*

BY W. J. CONKLIN, M. D., DAYTON, O.

Professor of Diseases of Children, Starling Medical College.

Reported to the Montgomery County Medical Society, September 2, 1881.

Harry F., aged 8 years, accidentally shot himself in the left hand with a toy pistol on July 4, 1881. The pistol is christened "The Banner." It shoots a blank, 22 calibre, metal cartridge.

The wound was situated midway between the base of the thumb and the metacarpal joint of the index finger. It was about one inch in length, ragged, powder-burned, and only extended into the cellular tissue. I saw him shortly after the accident, thoroughly cleansed the wound, applied water dressing and suspended the hand in a sling.

The next day the hand was painful, reddened and much swollen. Gave a saline cathartic, and ordered a flaxseed poultice to wound. On the 8th the wound began to suppurate, swelling and redness diminished, until on the 10th, it had so improved that carbolized cerate was substituted for the poultice and the case virtually dismissed.

On the morning of the 13th, I was again called, and found that he had passed a restless night, on account of severe pain and muscular twitching in the hand. The hand was in extreme flexion, and twisted towards the ulnar

side; the fingers were flexed upon the palm, and the thumb was erect and rigid, giving rise to a very marked deformity.

The parts were in tetanic contraction, and the slightest effort to straighten hand or fingers brought on severe pain and spasms of the muscles of the hand and arm. In these paroxysms the arm was violently extended and thrown above his head, and occasionally the muscles of the trunk were slightly convulsed. Voluntary motion always brought on a paroxysm and, at times, they occurred without visible cause. Careful examination revealed no indication of trismus. The wound had reopened, was inflamed, and the hand swollen.

He was at once put upon chloral, grs. viij., and bromide of potash, grs. xx, every three hours unless sleeping, and absolute quiet in a darkened room insisted upon. For 48 hours he was kept dozing away on the above prescription, during which time I rarely if ever saw him awake at my visits. He was quite frequently at first awakened by cramp; these attacks gradually decreased in frequency and severity. The hand and fingers continued in the position already described, but less rigid, and the spasm could be overcome by gentle force.

The chloral was now discontinued and the amount of bromide slightly increased. He gradually improved until we thought the danger had passed, when, on the night of the 20th, he had several attacks of convulsive cramps. He awoke crying, and the muscles of the hand and arm, and subsequently those of the body and legs, became rigid. These paroxysms were of short duration. Trismus was now discovered for the first time, appearing seven days after the tetanic contraction of the hand and fingers. Dr. Reeve was called in consultation, and saw the case several times during its subsequent progress. The patient was again put upon the chloral and bromide mixture, which acted as kindly as before, and he passed the greater portion of the two following days asleep. The trismus gradually became more marked, while the rigidity of the hand and fingers slowly relaxed. The last general spasm occurred on the 25th. His tongue was heavily coated, and eight grains of calomel were given, followed in five hours by oil. It was necessary to repeat the oil before a satisfactory movement was obtained. His temperature from the 21st to the 26th ranged from 99° to 100.5°, when it became normal. On the 25th he began to complain of double vision. The diplopia was binocular and there was no perceptible deviation of either eye. All through his sickness there was manifested unusual muscular weakness, and considerable difficulty in coordination, so that he was unable to stand alone when placed upon his feet.

On Aug. 6th, thirty days after the wound was received and twenty-five after the first appearance of the disease, my notes show that trismus is still present to such a degree as to prevent him taking solid food. The attempt

to eat a peach this morning brought on painful contractions of the masseters. Double sight still continues. He is very unsteady on his legs, walks with a straddling gait, and yesterday fell down in attempting to turn round quickly.

Since the last report he has slowly but gradually improved, until at this date, Aug. 20th, he seems to have perfectly recovered.

Considerable interest attaches to this case in view of the number of fatal cases of tetanus, caused by the toy pistol, which have been reported in the daily press since July 4. But the chief object in reporting it is to call attention to its slow development and the marked departure, in order and character of the symptoms, from the text-book descriptions of tetanus.

Without entering into a general discussion of the subject, let me briefly call attention to the following symptoms:

1. All authors emphasize the statement that, in the vast majority of cases, the first manifestation of the disease is in the masseter and internal pterygoid muscles, causing trismus: and call especial attention to the exemption of the injured part from spasm and rigidity. Erichsen says: "It is a remarkable fact that the cramps do not begin in the part injured, but, wherever this may be situated, they are always first noticed in the muscles of mastication, of the face, and upper part of the neck." Mr. Morgan, in his classical description, writes: "The first *decided* symptoms will almost invariably be an uneasy feeling and stiffness in the muscles of the lower jaw and tongue * * * and generally about the same time, stiffness is observed in the back of the neck." Alfred Poland, in *Holmes' System of Surgery*, writes: "The first evidence of tetanus unfortunately and but too truly portrays the unmistakable nature of the disease; the condition of the muscles of the jaw, at once announces the victim."

I am able to find but two cases on record in which the spasms primarily attacked the injured part. These are both reported by Mr. Morgan, and quoted in *Holmes' System of Surgery*. A sailor received a lacerated wound of the fleshy part of the thumb, occasioned by a splinter of teak-wood. This was forcibly extracted and the wound healed perfectly. Two months afterward, the first symptom of the disease occurred, and consisted of a painful neuralgia of the thumb. After death, two pieces of splintered teak were found imbedded in the adductor muscle, and resting upon a branch of the radial nerve. The second was occasioned by a blow of a schoolmaster's cane on the hand. Both pain and spasm commenced in the injured part, and the first true symptom of tetanus was a gradual spasmodic contraction of the flexor muscles of the hand, by which the fingers were drawn into the palm. The cramp subsequently involved the arm and other parts and eventually ended fatally.

2. All authors agree that however general and severe the muscular spasms may be, the muscles of the hand and fingers are rarely affected.

Holmes states "that the muscles of the wrist and fingers are usually exempt from spasm." Mr. Morgan says: "But, notwithstanding the continued and powerful contraction of muscular fibre in the limbs, it will be found that the wrists and fingers are but little affected." Gant writes: "Lastly, those (muscles) of the upper extremity, excepting the fingers, which generally remain movable to the last." Dr. Todd, who is quoted approvingly by Flint and others, gives, in his "*Clinical Lectures on the Nervous System*," as one of the points in the differential diagnosis between strychnia poisoning and tetanus, that in the former the hand is semi-flexed and that the spasms of the upper extremities occur earlier and are more pronounced than in tetanus.

In the present case, the disease first showed itself in the injured part, and tetanic rigidity and painful spasm and flexion of the hand and fingers were present a full week before the muscles of the jaw became implicated.

The diplopia coming on, or, at least, only discovered late in the disease, and also the loss of coordinating power over the muscles in standing and walking, are interesting features.

*"A CASE OF TYPHLITIC ABSCESS, OPENING INTO THE
BLADDER. RECOVERY." SUBSEQUENT
DEATH. AUTOPSY.*

BY JOHN N. BEACH, M. D., WEST JEFFERSON, O.

Readers of the *Recorder* for December, 1880, will doubtless remember something of this case, and may be interested in its subsequent history. For the benefit of those, however, who did not see the report of the case as above stated, I offer a brief synopsis of it:

June 7, 1880, A. W., aged 50, after a slight illness of a week, and from which he had nearly recovered, was attacked with a sudden and intense pain low down in the abdomen. General peritonitis followed, from which he recovered, having nothing more than a slight tenderness and dullness in the right iliac region. On the 4th of July, twenty-seven days from what I have chosen to call a perforation of the bowels, an abscess opened into the bladder, also communicating with the bowel, through which wind and fecal matter passed freely; i. e., there was a diarrhea through the bladder and urethra. This condition continued, lessening, however, until Aug. 1st, when it had nearly or quite subsided, and during the latter part of August and the months of September and October, nearly all traces of the disease disappeared, and the patient was regarded as entirely recovered from what seemed to have been a fatal lesion. At this time, October, 1880, the pub-

lished report of the case was written, and I then gave it as a case of recovery. Subsequent events, however, showed the danger of rushing into print prematurely with an opinion of a case of that kind.

Some time in November, there was a return of the pelvic uneasiness, not severe, but sufficient to annoy him. This increased gradually in degree of severity until by mid-winter he required the daily use of anodynes, and the loss of strength and flesh attested plainly the work of constant pain. During the winter he had two or three serious attacks of obstruction of the bowels, in which no evacuations could be obtained for a week; all this time the vomiting, pain and other evidences of obstruction continued. Aside from these attacks, the winter passed with comparative comfort, opiates being required, however, daily, to secure relief from the constant *uneasiness*, and oftentimes severe pain just back of the pubes. Taking food regularly, and retaining all his usual interest in business and the news of the day, there was no perceptible change in his condition other than a gradual emaciation, until March 26, when there was an escape of wind through the urethra, this having been preceded for several days by rather more of the local pain, and an uneasy feeling along the urethra. The discharge of flatus, with a small amount of pus, continued during the remainder of his life. The appetite continued fair until two weeks before he died, when an aphthous condition of the mouth and throat prevented him taking food, and for some days before death, there was an utter loathing of it. For ten days preceding death there was intense and continued pain in the sacral region and left gluteal region, which was attributed to the presence of bed sores, which we had not been able to prevent. He died June 29, 1881. one year and twenty-two days from the attack of peritonitis.

Autopsy, twenty hours after death. The emaciation was extreme, scarcely a trace of fatty tissue being left. On opening the abdomen, the stomach and intestinal canal were found empty, with an agglutination of the ileum, sigmoid flexure and bladder. The cecum, the supposed origin of the disease, was not involved. The rectum, instead of following the usual course, passed nearly directly across the sacrum to the right side of the pelvic cavity, and thence downward, and was about thirteen inches long instead of six or eight, as usual. There was a perforation of the sigmoid flexure as large as a goose-quill, communicating with the empty cavity of an abscess that would hold four ounces; this cavity opening into the bladder, near the fundus, by three holes a line or more in diameter. Aside from the perforations, the bladder was healthy. Hanging within this abscess, and attached to the posterior parts of the sigmoid flexure was a little mass of what seemed like unhealthy or exuberant granulations. This may have been malignant, but in the absence of a microscopic examination, I am inclined to think it was not. The periosteum was gone from the left half of the last lumbar vertebra, and

from the upper portion of the sacrum, and the bones making up the left sacro-iliac symphysis were carious, and this joint was filled with pus.

With the light of a post mortem examination, I am able to correct the mistakes of the former paper. 1st. The abscess did not originate in or involve the cecum. The fullness and tenderness that were so well marked in this region previous to the rupture of the abscess, I think can be explained from the unusual position of the sigmoid flexure and rectum, extending quite over to the right, and along which the pus would find its way and present more distinctly to the right, than where the cavity was formed a year later, almost exactly in the median line. 2d. The patient had not recovered at the time the published paper was written. The general conclusions I reached then, however, I am still inclined to maintain: viz: That he had simple ulceration of the bowels; that on the night of June 7, 1880, there was perforation of the bowel, followed by a nearly fatal peritonitis; that as the result of the perforation, there was an abscess, which subsequently opened into the bladder, and that there was almost a successful effort at recovery from this condition. There was some appearance of malignancy in the diseased structures, but we have so plain a history of an ulceration and abscess as the primary factors in the case, that I am inclined to regard the thickening of the coats of the intestines as a fibroid infiltration, which we frequently find at the pyloric extremity of the stomach, and which is so often mistaken for cancer. I am strengthened in this opinion by the fact that there were no secondary deposits, no growth of a similar structure in parts adjacent, and yet not continuous, as we would expect to find in true cancer.

The caries of the bones must have been recent. Up to two weeks before death he had been able to stand, and it is impossible to understand that he could have borne his weight upon his feet, without the most excruciating pain, had the disease of the sacro-iliac symphysis then been present. There had been no pain in this region up to within ten days of his death, but during this period the pain in the region of the sacrum was intense and continuous.

A STUDY OF FEVER.

BY JOHN H. LOWMAN, A. M., M. D., CLEVELAND, O.

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In discussing a perverted physiological process, questions of pathology and etiology are so commingled that the actual state is often lost sight of. In the consideration of fever this confusion is especially noticeable. The discussion generally takes an etiological, pathological or therapeutical tack, so that a

clear demonstration of what fever is in its essence does not appear. Much useless discussion and apparent difference of opinion result from this fact. Constantly as we use the term fever, a clear conception of that term is by no means as constant. Theories of the pathology and treatment will bend to the author's idea of the existing state. He who defines fever to be a disturbance dependant on a special anatomical lesion, and assumes that in an unannounced premise, cannot converse clearly with one whose definition of fever is, a disturbance of the vaso-motor system. The discussion of apyretics to-day pre-supposes a mutual understanding of pyrexia. The confused state of medical opinion on this subject has prompted my presenting it at this time.

What, then, is fever? It has been defined as a form of inflammation; and inflammation is defined as an exaggerated or perverted nutrition. Again it is defined as an excessive activity, or less definitely, as an excessive disturbance of every function. There is nothing here that satisfies. It is necessary, therefore, for us to analyze fever as best we may, and fix on that condition that most frequently, or indeed constantly, prevails as the disturbance in the body that materializes our term. In fever there is disturbance of the glands, the cardiac apparatus, respiratory apparatus, the vaso-motor system, and the thermic function. Of these five conditions, the most prominent one is disturbance of the thermic function. Not only will all the others be found to depend on this, but in many cases where the phenomenon of fever exists, some of them may not be found. All varieties of glandular disturbance may be present in fever, and as far as we can detect there may be no disturbance at all. Every form of cardiac action may prevail, from rapid weak or rapid strong beat to the reverse; the respiratory apparatus may be acting normally; the vaso-motor system, as gauged by the blood pressure within the arteries by the cardiometer, may be normal, or in paroxysm, or in paralysis; but we never speak of fever unless there is a high temperature in the body, and this, we necessarily conclude, must be independent of the other conditions above mentioned. That a high temperature will produce all the disturbance just mentioned is easily proven. If an animal be placed in a closed box and the air in the box be gradually raised to a temperature several degrees above the heat normal to the animal, the animal heat, as indicated by the thermometer, will gradually increase. Subsequently there will be disturbances of the heart, similar to those seen in fever. The heart beat, at first strong and rapid, gets weaker with the increasing heat, and finally becomes imperceptible. The respiratory action follows that of the heart. When the heat becomes great, the cerebrum is affected. There is at first stupidity, then delirium and even convulsions, changing to coma and death. The ever-prevailing sequence observed in these experiments is evidence that heat is the cause. When the animal is removed from the box

and douched with cold water, he will soon revive, if coma has not been too profound.

Dr. H. C. Wood's experiments, imitating insolation, also prove heat to be a cause of these disturbances. He fastened bladders to the heads of animals over the cerebrum, and kept the bladders filled with hot water. In this way the brains of the animals were heated without materially affecting the rest of the body. A condition resembling insolation was developed, sometimes gradually, sometimes suddenly. The stupor would gradually deepen into profound coma and death. If, however, the hot cap were removed and a stream of cold water poured on the head before the animal was *in articulo mortis*, it would revive and be apparently fully recovered in a short time. This was tried on animals somewhat exsanguinated so that it could not be attributed to congestion of the brain. After death in these cases, the heat of the brain, as estimated by plunging in a thermometer, was in a cat, 108° , in a rabbit 111° —about the temperature attained by prolonged exposure to the sun's rays.

T. Lauder Brunton has experimented with heat on the hearts of cold-blooded animals. It is well known that the hearts of these animals will beat for a long time after they are removed from the body. To the isolated heart of a frog, Dr. Brunton applied heat and found that the pulsations became more rapid until a limit of tolerance was reached, and then the pulsations ceased.

In these experiments there is no doubt whatever that the heat was the direct cause of the disturbance, and the disturbances observed are similar to those we find accompanying hyperexia in man. Furthermore, reasoning from therapeutics, there are some severe fevers that are relieved by simple abstraction of heat; *e. g.*, insolation and reumatic cerebritis. In these diseases, when the temperature is 108° and coma is threatening, simple abstraction of heat until the temperature is 102° revives the patient. There can thus be no question but that heat is the agent that produces these changes, and the therapeutic end is best obtained by abstracting it.

Simple increase in the animal heat is not fever. The animal in the hot box suffers from heat, but may have no fever. So the artificially insulated animals suffer from heat but may have no fever. A man after severe muscular exercise has more than his usual quota of heat, and eliminates carbonic acid and urea in excess, but is not feverish. In all these cases the standard of temperature is preserved, and as soon as the extraneous circumstances are removed, is soon regained, though an increment of heat may have been temporarily added. The standard of temperature in man is $98\frac{1}{3}^{\circ}$; in some birds, 113° . Should the individual be chilled by a cold blast, the thermometer might record a lower degree for a time, but the standard would soon be regained by an increase in the production of heat in the body. Should the

surrounding atmosphere be excessively heated, or the individual exercise actively, the registration of heat might be higher than the standard, but would soon fall to the normal through a diminished production or an increase of loss. Thus there are variations from the standard that are consistent with health, but they are only temporary, and are limited.

By fever is meant a permanent elevation in the standard of temperature. In a man with fever this standard may be 104° . If he is temporarily chilled by a cold wind the thermometer may fall a degree or so, but soon returns to 104° . If he exercises freely, it may rise a degree or so, but soon returns to 104° . These changes are consistent with the new standard, 104° , just as the variations in health are consistent with the standard $98\frac{1}{2}^{\circ}$. We might say that a new individual is developed whose normal temperature is 104° . When pyogenous material (speaking according to Hueter) is in a man, his normal temperature is greater than his former temperature. To this paleological being, the normal temperature must be $98\frac{1}{2} + X$; X being more or less according to the grade of the fever. As Dr. Stokes expresses it, the individual has entered upon a new and special phase of existence. Yet he does not define fever, but says "it is more easy to say what it is not than what it is." In consequence of taking no well-defined position as to what fever is, this author, usually so clear, becomes at times confusing; *e. g.* when he makes the eruption in variola the result of fever, whereas it must be due to a special poison acting synchronously with the fever. He also holds syphilis to be a form of fever—a position now totally untenable.

A standard of temperature is maintained by a balancing of the heat producing and heat-abstracting processes. They vary in activity, and have wide limitations consistent with health. Heat is lost to the body by radiation from the surface, conduction, expired air and excreta. The amount lost in a given time is difficult to determine, but it is estimated by Dr. Draper that enough is lost every hour to raise, if retained, the temperature of the body in that time 2.2° C., or 3.9° F. If all the heat lost in twenty-four hours were retained, and the heat production should progress at its usual rate, the temperature of the body would be doubled. If, however, heat is retained in the body, production diminishes; if lost in increased quantities it is produced excessively. The amount of heat lost in a certain time may be estimated by the cold water bath. Thus, Dr. Draper found that a man weighing 180 pounds, resting in a bath of 472 pounds of water for one hour, would raise the temperature of the water 1.11° C. The amount of heat necessary to raise 472 pounds of water 1.11° C. in one hour, would represent the amount of heat lost normally by the body in the same time. The amount of heat necessary to raise 472 pounds of water 1° C. would be twice the quantity necessary to raise 236 pounds 1° ; and the amount neces-

sary to raise 236 pounds 2° would be twice the quantity to raise it 1° . A table constructed on this basis shows that the loss

In a bath of 20° C. (68° F.) is.....	$6\frac{1}{2} \times$	normal.
“ “ 22.5° C. (72° F.) is.....	$4\frac{1}{2}$	“ “
“ “ 25° C. (77° F.) is.....	$3+$	“ “
“ “ 28° – 30° C. (80° – 82° F.) is.....	$2+$	“ “
“ “ 34° – 35° C. (93° – 95° F.) is.....	about	“ “

In these experiments the temperature of the body did not vary much; production of heat must, therefore, have kept pace with loss, and have increased in the cold bath to $6\frac{1}{2}$ times the normal. The limit of production may, however, be reached; then the internal temperature rapidly falls.

The chemical processes in the body are influenced by other agencies than heat and cold. Temperature may be lowered by amyl nitrite or chloral. In small animals drugged with chloral the thermometer falls several degrees. Death may be averted by wrapping the animal in cotton batting and keeping the surrounding atmosphere at 100° F. Here the heat-producing forces must be directly affected. In the case of the bath they were influenced reflexly. On the other hand, material called by Hueter *pyogenous*, may be introduced into the body which will raise temperature, and when the standard of temperature is permanently advanced we have the condition of fever, and in order to sustain this new standard an increased production of heat is necessary. A certain relation must always exist between the external temperature of the body and the internal temperature. The difference between the two is not more than 4 to 6° . When the difference between the internal and external temperature is greater than this, the body realizes the sensation of cold. It matters not whether the difference is made by falling of external temperature or rising of the internal. When the difference is less than this there is a sensation of heat. When the sensation of cold is realized every effort is put forth to prevent loss of heat. The blood is forced from the skin to prevent radiation and clothing is added. When heat is realized, efforts are made to lose heat; the skin relaxes, the blood flows nearer the surface and clothing is removed.

When the standard of temperature is suddenly raised from increased production, a condition of body obtains in which the external temperature is very much lower than the internal. The difference is too great. A chill results, and every effort is put forth to raise the external temperature to correspond to the new standard which we will say is 104° . When the equilibrium is again established between the internal and external temperature, the patient feels comfortable, even though the thermometer registers 104° . In malarial fever, immediately before the chill, the thermometer rises and the chill follows as a conservative condition. When the change from standard

to standard is slow no chill may be experienced, only rigors perhaps and chilly sensations. But when the rise is rapid or sudden, the chill is observed. Conversely, if the existing standard of the temperature of the body is 104° , the external temperature will correspond with it. If this standard changes to a lower, say 99° , the difference between the internal and external heat is reduced to a minimum, a sensation of heat is realized, the avenues for loss are thrown open, and the patient perspires and feels hot until the equilibrium is established to the new standard. In malarial fever, again, the sweating stage is introduced by a sudden fall of the thermometer and the excessive transpiration is resultant upon that fall. Thus a chill in health and in disease is attendant upon a widening of the difference between the internal and external temperature. In health the breach is made by a falling in the external temperature, while the internal remains the same. In disease this breach is made by rise in the internal temperature, while the external remains the same. In health, cold bath or ambient atmosphere is the cause and the heat production is stimulated and heat abstraction curtailed to hasten the equilibrium for the standard of $98\frac{1}{2}^{\circ}$. In disease, excessive activity of the chemical processes is the cause, excited by we know not what, and abstraction of heat is temporarily curtailed until the equilibrium for the new standard, say 104° , is established and the individual is again comparatively comfortable. A converse reasoning explains the phenomenon of deferment.

What is the cause of this high temperature, and how to control it, is the practical question. Much useless discussion is, it seems to me, curtailed by the statement of Hermann, that "heat is one of the essential functions of living tissue." Heat is equally as essential as motion, and while there is life there is heat. This statement does not exclude plants. We often find them producing heat. Especially is this seen in araceæ (sweet flag, Indian turnip, Dalton). During fecundation the temperature of this family is 8° to 10° C. above the ambient atmosphere. We cannot determine what sustains life, neither can we determine what produces motion. No more can we find the primary cause of heat. We can only say that it is an essential function of being, as yellow is an essential attribute of gold.

As we may have excessive motion from increased molecular activity, as seen in the tumultuous rush of leucocytes to an inflamed spot, so we may have excessive heat from increased activity in that something that in all life produces heat. We thus conclude that heat is produced over the whole body and in the greatest quantity where there is the most life, or, to speak definitely, where there is the most activity. We would imagine then, that glands are hotter during action than during rest. This is so, and the difference in the temperature during the two states is very decided. Since heat is produced the whole body over, is fever always the result of undue activity of

all the chemical processes? A question of this kind can be merely speculative. However, I see no objection to affirming that the undue excitability may be circumscribed and not universal. That owing to some nervous disturbance, one organ or part of an organ may be thrown into excitement and the heat resultant upon this undue action of that part would be carried to the general circulation by the efferent vessel, and thus induce a rise in the temperature of the whole body. In such a case, however, the fever would be but slight. Even in health, the temperature of the portal system may be 108° , yet the standard is $98\frac{1}{2}$. We read of localized agues, brow agues, etc., in which it is claimed that a circumscribed spot goes through all the stages of ague, chill, fever and sweat, rising and falling in temperature, as a case of miniature ague. On one theory of the mechanism of fever this can be accounted for.

The position explaining fever by increased production, finds an able antagonist in Traube. He explains the phenomenon of fevers on the ground that less heat than usual is abstracted and that retention of heat raises temperature. He fortifies this position by experiments. Because cold water reduces temperature in fever so much more rapidly than it does in health, he argues that all that is required in fever is to abstract the extra heat and the internal production continuing the same as before will not register a high temperature until through the agency of disease, heat is again retained. This rapid defervescence of heat is a fact but need not point to Traube's theory.

There is a limitation of function to every living tissue. In health these limits are the most extensive. In disease they are less so. A muscle tires more rapidly, exhausts and becomes paralyzed more rapidly in disease than in health. There is more resistance to almost all antagonistic influences in health than in disease. When in health, with a standard of temperature of $98\frac{1}{2}^{\circ}$, a person is placed in a water bath of 68° Fahr., we have seen that abstraction of heat is six times the normal. Heat production at first is even more than that, for we see the thermometer rise temporarily from excessive production excited by the cold to the surface of the body. As the person lies long in the bath, the production gradually fails to equal abstraction, and the thermometer falls to 98° , then to 97.5 . But this descent does not take place for an hour, so great is the reserve power of the body to produce heat. In time, however, the limit of the body is reached. Production at the tremendous pressure can no longer be maintained, and as abstraction continues at six times the normal and production has fallen to, say, five times the normal, the net loss is great, or twice the normal, and the thermometer begins to register low, and if relief is not brought and the surface of the body warmed, the person will die of cold.

In fever, when the standard of temperature is 104° , this same sequence prevails. But on account of the strain that has so long been put on the body,

when the person is laid in the bath and abstraction begins at a fearful rate production can not long equal it. At first we see a rise in temperature as in health, but in five or ten minutes the decline commences, and, if the bath were continued, would proceed rapidly. So that we remove the individual from the bath as soon as we note a decided decline, for the fall continues even after the removal. In the beginning of the bath, the production of heat is almost at its limit, and can be pushed to but a slight increase. In some cases of continued fever, we noticed this limit reached without excessive abstraction of heat, just from the apparently natural course of the disease. As in typhoid fever, when the patient dies of exhaustion, we note a decline of temperature several days before death. This point has been emphatically set at rest by the critical experiments of Liebermeister. He shows that the amount of heat lost during fever, estimating from the cold bath, is very much greater than in health; so that there can be no doubt that the fever is due to excessive heat production.

The consideration of the mechanism of fever, or the manner in which the high temperature is excited, would lead beyond the bounds defined at the beginning of this article. Are the chemical processes independent, or not? If independent, what ferments or irritants excite them? If dependent, are they influenced by the hemic or nervous system? If by the nervous system, does this influence come through the vaso-motor system, or through special nerves radiating from an inhibitory heat center? There are inhibitory centers which control the vaso-motor system, and when these are paralyzed, there is tumultuous excitement. Why not thermic inhibitory centers, which repress excessive action? Tscheschichin claims that there is such a center, and that it is located in, or just above the pons; that its function is to repress bodily heat, and when it is paralyzed the heat of the body rises. Heidenhain, Bruch, Gunter, Wood and Bastian, sustain this opinion by experiment.

Cor. Huron and Prospect Sts.

ACUTE DYSENTERY.

BY C. H. HUMPHREYS, M. D., BRANDT, OHIO.

Read before Miami County Medical Society, Sept. 13, 1881.

MR. PRESIDENT AND GENTLEMEN:—The subject which I was appointed to present for your discussion to-day is one of a very practical nature, inasmuch as acute dysentery is a malady of quite frequent occurrence. Considered as a disease of armies, it is a most formidable enemy, and consequently has received critical study from military surgeons. Diarrhea and dysentery

have decimated armies almost as rapidly as have gunshot wounds; probably nearly 100,000 soldiers died of those diseases during our late war.

Under the term acute dysentery are included all those forms of acute alvine flux characterized by tenesmus. Some of the old writers made many subdivisions or this, as of other diseases; one I find gives twenty different species of dysentery with seven further subdivisions. At the present day it usually is described in two forms: (1) simple, inflammatory, or catarrhal dysentery, and (2) diphtheritic dysentery. Of the different synonyms, the above names seem to be preferred, and are suggested by the lesions found. I will not so far presume on your intelligence as to detail to you the symptoms of acute dysentery. There appears to be no difference in the clinical history of the two forms of the disease, and either or both may, and frequently do, develop during an attack of simple acute diarrhea. The griping and painful expulsive efforts, the inclination to sit and strain at stool, are so characteristic as to be unmistakable, and a correct diagnosis is frequently made by the patient himself. I recall a severe case where the patient, a child, was with difficulty induced to leave the chamber long enough to receive an enema; he had sat and strained at stool for hours, I was told.

In the great majority of the cases of the catarrhal form, convalescence begins in about a week from the time of appearance of the dysenteric symptoms. Flint made the observation that acute simple dysentery is self-limited, and in a contribution toward the natural history of the disease, published in the July number of the *American Journal of the Medical Sciences*, 1875, he analyzed ten cases that were permitted to run their courses without medicinal treatment. The average duration of those cases was eight or nine days, which corresponds with the average duration of the disease when regularly treated by the different methods. It would appear that here is an opportunity for some one to venture the opinion that acute simple dysentery ought to be classed as a general disease with a local expression in the lower bowel; as pneumonia is now considered a general disease with a local expression in the lungs. It should be remembered that all of Flint's cases were probably of a mild catarrhal form, such as we most frequently meet with.

Diphtheritic dysentery is acknowledged to be a disease of great gravity. In its simple inflammatory stage, it is not distinguishable from the catarrhal form. As it progresses, passing the stage when we would expect favorable changes to occur, well marked and grave symptoms arise; the patient rapidly emaciates, becomes cadaveric in appearance, with sunken eyes and hollow cheeks; the voice becomes weak and high pitched; the tongue becomes brown or red, and dry; the urine becomes scanty, preternaturally acid and irritating; the abdomen tender and sometimes tympanitic; thirst and anorexia are extreme; finally the dysenteric collapse supervenes, with insomnia, delirium and hiccough. There are also changes in the appearances of the

stools; from being mucus mingled with blood they become sero-sanguinolent, or thin and black, containing flocculi of lymph and bits of necrosed membrane, and have a cadaveric odor. Should the patient not succumb in this stage, he may live an indefinite length of time and usually is quite certain of a protracted convalescence, with sensitive bowels and frequent relapses. To those of you who have seen military service, this description is sufficiently familiar.

There are a number of complications of acute dysentery that may imperil the patient; malarial fever, hepatic complications, and peritonitis, being the most common. The war record shows one death in every fifty-seven cases, and one chronic case in every nine of the acute.

This disease occurs most frequently in summer and autumn, and doubtless is frequently excited by the sudden chilling of the surface of the body. Impure water and improper food are very prevalent causes, and are sufficient without the supposition of its possessing a specific contagium. Modern speculation would ascribe the cause of dysentery to some of the low vegetable forms, since bacteria are found in the dejecta in abundance; but unfortunately for this theory of the "bacteria fanatics" it is found that "a large part of the normal human feces is made up of these low forms in numbers which must be estimated by the hundreds of millions in the feces of each day." "Nevertheless the persistence in a modified form of the general hypothesis that bacteria are in some way disease producers, has permitted the survival, in certain quarters, of the doctrine that dysentery is thus caused. This doctrine as late as 1874 received the assent of Virchow, whose splendid rhetoric has lent plausibility to arguments which appeal almost as much to faith as to reason. It must be admitted that up to the present time no vegetable forms have been observed in the dysenteric stools which differ morphologically from those found in healthy individuals."—*Woodward*.

Opportunity for post mortem inspection, in case of catarrhal dysentery, occurs quite infrequently since the disease *per se* is but seldom fatal. The gross appearances show hyperemia of the mucous coat of the intestine in different degrees of intensity, inflammation and thickening of the mucous and sub-mucous coats in patches of various dimensions, with the enlargement of the solitary glands. In the diphtheritic form, in addition to the above mentioned lesions, are found patches of fibrinous exudations, sometimes superficial, lying as a separable layer, merely involving the epithelium and filling the follicles of Lieberkuhn, or the more destructive process of ulceration, with excavations involving the muscular coats, covered with diphtheritic sloughs. Patients surviving the separation of the sloughs have remaining a chronic form of the disease with indefinite duration. Should recovery follow, cicatrization of the the ulcers produces irregular, puckered contractions of the bowel, amounting in some rare cases to stricture. I.e.

sions of other organs are frequent complications. The histology of the diphtheritic process is full of interest, but cannot be considered at present.

With separation of the necrosed tissue, healing by granulation of the surface and the development of cicatricial tissue, is the method of recovery. A coat of columnar epithelium covers the cicatrices, but the glandular layer of the mucous membrane is not reproduced,

“As to the intimate constitution of the dysenteric miasm, no satisfactory explanation has been offered by those advocates of the infectious nature of dysentery. It would seem wiser to confess our ignorance of this unknown factor of disease than to embrace the undemonstrated hypotheses that have been brought forward. In this respect we might advantageously imitate the example of Sennertus, who openly confessed, when he brought forward his speculation as to occult qualities, that it was the last asylum of human ignorance.”—*Woodward*.

The question of contagion remains *sub judice*, and presents many obscure problems.

In the prophylaxis of this disease, much may be accomplished by attention to hygienic rules, but the strict regimen of the old writers is to-day very much questioned, and it is doubtful whether more than ordinary precautions that should always be followed by those desiring health, need be observed.

In the treatment of a case of acute dysentery, rest in bed is of prime importance. A well ventilated and lightly furnished room is also desirable. That the patient have a proper diet, is as important as that he have medicine. Milk combined with lime water is often well borne and may be given with some farinaceous article, as barley or rice. Nitrogenous food also may be allowed in some easily digested form. Opinion conflicts about the nature and quantity of drinks. Writers of the last century advocated the use of large quantities of water: some said it should be cold and some said it should be warm; *quantity* they appear to have agreed upon—the alimentary canal was to be flooded to its fullest capacity. One writer states that he himself, while suffering from an attack, drank with benefit twenty-four pints of warm water in a single day; two days later, forty-eight pints in fourteen hours, and again still later, between twenty-four and thirty pints in two hours!

We to-day usually permit the patient to choose that drink which is most agreeable, and it seems to be the best guide; always taken in moderation.

The customary practice of taking brandy or whisky, with some aromatic, on the approach of dysenteric symptoms, is apt to only aggravate the disease. Alcoholics, however, have their place in the treatment, and their use should be governed by the same rules governing their administration in other diseases. In severe and protracted cases, whisky or brandy, combined with milk, is indispensable. The old fashioned wine-whey has become deservedly obsolete. The use of alcohol as food should be borne in mind,

and may be so used when the stomach is rebellious to receiving food in sufficient amount.

The history of dysentery, like the history of other acute diseases having a natural tendency to a favorable termination, records the rise and fall of many specifics. Among the most famous were antimony and ipecac. The former, both, after a successful career, lost their reputation, but within recent times ipecac has regained its lost ground and to-day has many warm friends. The remedy is supposed to have some cholagogue action, and in some cases produces prompt improvement in the appearance of the stools. Its use should be limited to vigorous patients suffering with the acute catarrhal form. The method of administering it is to give twenty to thirty grains, with M. xx—xx tr. opii, in a little milk, taking little or no liquid afterward; the dose may be repeated in four or six hours. Bartholow highly commends ipecac in the treatment of puerperal dysentery. It may be mentioned that Austin Flint, in a lecture on diseases of the alimentary canal, reports that in the large proportion of cases the ipecac treatment fails.

Rhubarb is another old remedy that was revived after long neglect, but the uncertainty of its quality has been a bar to its general use in this country. Still it continues to be a popular remedy with many. The sum of the evidence seems to-day against the use of calomel, either for its constitutional effect or its purgative effect, and in any type of the disease. We have no certainty that it at all benefits the diseased condition of the intestine. We do know that it rapidly debilitates the system and is liable to produce salivation. And we then justified in administering so potent a remedy on the theory of it being an hepatic stimulant, when such a theory is positively contradicted by experimental observation?

The next mercurial, the bichloride, is less objectionable, and experiments have proved that on dogs it does increase the hepatic secretion, and moreover we know it to be a tonic, increasing the red blood corpuscles. Ringer states that given in doses of gr. $\frac{1}{16}$ every hour or two, when the stools are slimy and bloody, it rarely fails to relieve the disease.

Two other purgatives of frequent use are Epsom salt and castor oil. The use of saline purgatives to evacuate the bowels and perhaps modify the secretions, was given a great impetus by Trousseau, and they continue to the present time to hold an important place with many writers.

Opium without exception has had a more successful reign than all the other remedies ever used in the treatment of dysentery, and to-day continues to hold the first place. It is given with astringents, by the hypodermic method or by enemas; its use generally being preceded by evacuates. For relief of pain, the hypodermic use of morphia is to be preferred; or if by the mouth a combination of morphia and hyoscyamus will have a pleasant effect.

The great reputation of some astringents, doubtless, was mainly due to the opium with which they were combined.

It is an established practice to administer anodyne enematas, as they frequently promptly relieve the painful tenesmus, but it is questionable whether they do it as satisfactorily as a hypodermic injection of morphia, and they are certainly more inconvenient and meet with more objection from the patient.

The use of ice-water, and of hot-water clysters, have been highly recommended. The method of Hare is to introduce beyond the sigmoid flexure a flexible tube, and irrigate the tract from cecum to anus; thus thoroughly emptying and cleansing it, and "converting a huge internal abscess into an external lesion." In treating 346 cases in Calcutta he had but $4\frac{3}{4}$ per cent of deaths. It is recommended, in place of Hare's powerful syringe, that gravity be relied upon, and that no attempt to pass the tube beyond the sigmoid be made until the rectum be distended (which greatly facilitates its passage), and also that the water be of the temperature of the body and "contain some chloride of sodium or other neutral salt, that the specific gravity may approximate that of the blood." (Woodward.)

Antiseptic injections have ardent advocates among those engaged in the bacteria warfare. Salicylic acid seems preferable for this purpose.

The nitrate of silver clysters, to be effective, must be given in quantities sufficient to distend the rectum and colon. A drachm or more of the salt may be given in three pints of water. The small quantity usually injected is little apt to be of real benefit.

The fashion of giving ipecac injections has been revived, but whether that mode of giving it is equal to its use by the mouth is not yet determined.

Now, gentlemen, I have briefly presented the subject for your consideration. Though it be barren of any new facts, I hope it may be a fair resume of the present state of our knowledge of this disease, and serve to draw forth unre-served comment as well as practical information concerning its successful treatment, which, after all, is what interests us as practicing physicians.

CORRESPONDENCE.

"ON CELLS: A RETROSPECT."

EDITORS OHIO MEDICAL JOURNAL:—In the August number of the JOURNAL appears an article entitled "On Cells: a Retrospect," which I wish briefly to review. It starts out learnedly with the eminent John. Muller's quo-

tation of the great Kant; and then follow names, thick and fast, hardly less lustrous than those of the bright lights already mentioned. The titles of the works from whence these various sayings have been culled, also fill us with wonder at the opportunities the writer had for referring to old, rare and costly works. While reading, however, the idea slowly creeps in on us that we have read all this before, though possessing only a very modest library, and this idea becomes so strong that we take out Stricker, *Hanb. der Lehre von den Geweben*, turn to chapter 1, and—lo and behold you—here is essentially the same thing, in the same order, with the same references. Strange that Stricker, ten years ago, should have fallen on the same arrangement and the same books our author has taken to-day. In other words, here we have an almost literal translation.

Reading on from this place (p. 65), we still find our author and Stricker in very good general accord, though it is not carried out so thoroughly in the minor points, down to about the middle of page 67. By using somebody else's translation of Max Schultze (whose the author forgets to say) poor Max is made to let "passengers in a broad sea swarm together" (p. 68); whereas he did say, in his original, "the promenaders in a broad street."

Were our author's library as well stocked with newer works on the subject as those of Ihring, Flemming, Peremeschko, Auerbach, &c., as it is with the older ones, he would not say, as he does on page 70, "With the sole exception of cartilage, * * * the structures which result from the fission of cells in the adult organization when in health, are not such as to render mistake impossible."

As he is in such good agreement with Stricker in other parts, it is but just for him "to express entire adherence," on page 71, to one of Stricker's doctrines, and, no doubt, Stricker will be much stronger therefor.

So far as the rest of the article is concerned, we fail to find a single new theory, fact or experiment, which would justify its existence in such a place, even if it were true that the red corpuscle is a "differentiation backward from the white. Notwithstanding all this, however, the article is of some value in teaching the beginner what not to do in writing a paper:

Firstly, he should not take from another book without giving due credit, especially when quoting almost the whole of one chapter.

Secondly, he should not retrospect a subject until he has mastered the subject by at least a perusal of its literature.

Thirdly, he should not attempt to sit in judgment on a question which has occupied the deepest and most learned thinkers, unless he be, by special work and application, fitted so to do.

I would not deem it necessary to make these remarks, but for the fact that

the publications in the JOURNAL, which is the organ of the State Society, carry with them, to a certain extent, the endorsement of the profession of the State.

Respectfully,

DR. ALBERT M. BLEILE.

COLUMBUS, O., Sept. 12th, 1881.

PLACENTA RETAINED FOUR WEEKS.

EDITORS JOURNAL:—In the April number of the *Recorder* is a note of a case of abortion at four and a half months, in which the placenta was retained, without hemorrhage, for ten days. Permit me to state that I have attended a case, at the fourth month, in which the placenta was retained for four weeks without hemorrhage. Hemorrhage then came on to an alarming degree, but was checked by the usual remedies—ergot, hot water, etc.—while the placenta was expelled piece-meal, in a state of decomposition. The recovery was good.

I simply report this case after noticing, or rather renoticing, the editorial note of the case reported by Dr. Bruce.

Respectfully,

L. W. LECRONE, M. D.

HEBRON, O.

PRIORITY OF DISCOVERY OF THE ANTAGONISM BETWEEN OPIUM AND THE SOLANACEÆ.

EDITORS OHIO MED. JOURNAL:—While here, in conversation with my nephew, B. B. Scott, some facts in my experience have again been called to my mind, to which I have many times reverted since their occurrence.

In the fall of 1855, I was called hastily to see a boy of Wm. Winns, who lived south of Columbus, five miles on the road to Circleville. I arrived at the place after dark. Found a boy two and a half years old, furiously delirious, the body as red as if covered with a complete scarlet fever rash, the pupils completely dilated. The patient had been well as usual up to the time of this attack.

After a few minutes canvass of the situation, I gave him a full dose of powdered ipecac and sulphate of zinc. In a few moments he threw up a quantity of the seeds out of the burr of a James Town weed—of which a party of the first settlers at that historic place took a dose. Here we had the cause of the attack, and the subsequent symptoms. After waiting a time, the symptoms did not subside, nor the anxiety of the mother by the treatment and discovery. She asked if I thought that the child would get better. I replied that I thought not. "Then do something to relieve him." So I thought I would give something to let the child die easier. I gave him a full dose of opium, as I thought at the time. In one hour he became more quiet. On examination of the pupils I found them not so fully dilated as before. I then

assured the mother that the boy was better, and that he would get well. I left a diuretic mixture, and started for home.

When I gave the opium I had no idea that I should antagonize the stramonium, but when within two or three years after that, we began to hear of the antagonism between opium and belladonna, I clearly saw the principle. Belladonna, stramonium, and hyoscyamus poisoning, are the same in principle, if not identical.

Later in the fall of the same year, I was attending a young woman in Jackson township, Franklin county—not far from Grove City—who was suffering with acute inflammatory rheumatism. I had seen her twice. One day after I had been there, an old wise-acre came and gave the patient a prescription to cure rheumatism: "Take half a pint of brandy, and gimson weed seeds; soak the seeds in the brandy, and take a little three times a day." She filled the bottle of brandy with the seeds, and the second day took a table-spoonful. In a short time she became delirious, and the rash appeared. She became so furious that she escaped from the house, forgetting her pain in the joints. She ran across a meadow, but was captured by a man who was at work in the field, and with difficulty returned to the house. I was sent for, and found her in this condition, with the rash, furiously delirious, pupils dilated, etc. I gave two grains of opium, and gave one more in an hour, to the relief of the patient. She recovered speedily, and after coming out of this condition had not so much pain again.

This was my experience of long ago, before we had heard of such relations between drugs.

Yours truly,

W. J. SCOTT, M. D.

MT. VERNON, O., August 25th, 1881.

THE DOUCHE IN HYSTERICAL CONVULSIONS.

EDITORS OHIO MEDICAL JOURNAL:—The report of an interesting case of hysteria, by Dr. J. C. Reeve, of Dayton, O., in the last number of the JOURNAL, induces me to relate briefly a similar case, showing the prompt effects of the cold douche. I was one morning last winter asked to see a middle aged German in convulsions. The paroxysms were recurring about every five minutes and had been in progress at that rate two or three hours. During the interval the patient was apparently unconscious, but by a sharp command and a rough shake could be made to protrude his tongue. He did not bite his tongue nor froth at the mouth and the pupils acted normally.

On entering the room I had not long to wait for a fit. It began by slight twitching of the muscles of the extremities which rapidly grew stronger, until the arms and legs were thrown about wildly, threshing the bed, striking the wall and bedstead terrific blows, the patient making almost a circuit of the bed before the storm subsided.

In the following twenty-four hours I saw the patient twice. He was made to swallow during that time, in divided doses, a drachm and a half of chloral, twice that amount of bromide of potash, and was given two hypodermics ($\frac{1}{3}$ gr. each) of morphia. *He had had nearly one hundred and fifty fits.*

The remedies were altogether useless. On making my call, on the morning of the second day, and finding the condition of the case unchanged, I had brought in a bucketful of water with enough snow in it to bring it near the freezing point, a tub placed by the bed, and getting two trusty neighbors—men of muscle—to hold the case well in hand, had him held across the bed, head overhanging the tub, twisting in the fingers of my left hand a good “scalp lock” of the patient’s long hair, with a quart cup I began pouring the water from a height of about three feet, in a slow stream on the patient’s head, into his ears, eyes or mouth, whichever came in the way of it, without mercy until he begged for quarter and begged more than once.

Not many cupfuls were needed, for no one need be told that ice-water poured upon the head from that height is sure to cause intense pain.

It was done ostensibly, of course, “to cool the man’s head.” The patient had no more fits that day, nor any day since.

I feel, as does the distinguished gentleman who reported the case cited, “that for one disease or one form of disease, I have a remedy—a reliable, certain remedy,” but this is the only time I have had a male patient on which to use it.

Dr. Reeve believes it is “by interfering with respiration and producing a sense of suffocation that the douche, in a great measure, produces its good effects.” Is it not wholly produced by its moral effects, the pain and shock? Firing is about as efficacious as the douche and that does not interfere with respiration. Probably had I spanked this Dutchman right soundly with a shingle (as my assistants suggested), the results would have been the same, and that would not have interfered with respiration.

Respectfully,

C. H. HUMPHREYS, M. D.

BRANDT, O., Sept. 10, 1881.

SOCIETY PROCEEDINGS.

PROCEEDINGS OF MIAMI COUNTY MEDICAL SOCIETY—
REGULAR BI-MONTHLY MEETING HELD AT
TROY, SEPTEMBER 13, 1881.

Dr. J. F. Gabriel, of Piqua, President, in the chair.

Dr. Humphreys read a paper on Acute Dysentery, the subject for discussion.

Dr. Cline opened the discussion, and remarked that in his observation the disease was most frequently produced by sudden reduction in the surface temperature. He begins the treatment, ordinarily, with the administration of a saline purgative—preferably Rochelle salt—following with opium and astringents. Where there is much tormina, gives a starch and opium enema.

Dr. Ashton was disposed to regard the affection as not a local disease, but one of a constitutional nature. Seventeen years ago he met it in a severe epidemic form, which he looks upon as an intensified degree of the disease. He usually treats it by saline purgatives, with a mineral acid, and for relief of the pain relies upon opium. Cases occurring in children have caused him most trouble. Related a case of the disease in a child, now under treatment, which was attended with high fever, and ushered in with a severe convulsion. After failure of the usual remedies, resorted to enemata of solution of nitrate of silver, with prompt relief.

Dr. Thompson observed that in this malady there is a congestion of the liver interfering with circulation of the portal system, in turn producing congestion of the bowels; hence he gives calomel, or hydr. c. creta, a few doses, combined with Dover's powder, following with ol. ricini. If the disease be not then arrested, he uses opium, astringents and tonics, the former *per rectum*.

Dr. Gilbert has not regarded the cases of looseness of the bowels so frequently met with the present season as real dysentery. In treating dysentery he prefers that good old-fashioned remedy, hydr. c. creta, which he gives in very small doses, combined with opium. In treating infantile dysentery gives but little medicine by the mouth, relying on topical applications of the medicines in solution, by which method he gives quinia, morphia, etc. Did not find hypodermic medication satisfactory.

Dr. Wright treats the disease with Dover's powder and hydr. c. creta until the character of the stools improves.

Dr. Senour expressed himself similarly.

Dr. Hartman mentioned that he never saw an epidemic form of the disease. The cases he had treated, as a rule, were of a rather mild character, yielding to opium, with an occasional cathartic and warm local applications. The patient was sent to bed. He also relied much on quinia as an anticongestive remedy, of unquestioned power. Does not believe in the antiphlogistic effects of mercury, in this or any other disease.

Dr. Reed said he had observed, in diarrheas of the past summer, frequent tendency to dysenteric symptoms. In dysentery we have an inflamed colon to deal with, accompanied by a constipated condition of the small bowels; now, if this be true, obviously the indication is to equalize the circulation by the use of cathartics, of which he gives preference to frequent small (teaspoonful) doses of the bitartrate of potash. After the upper bowels are un-

loaded, opium may be given with benefit. Should there be much pain, he gives an enema of solution of morphia and acetate of lead; prefers a watery solution to starch clysters.

The President, in closing the discussion, during which, he said, many valuable thoughts had been expressed, stated that he was disposed to regard the liver much at fault in this disease. Owing to its being in a state of congestion there was an obstruction to the free circulations of the blood from the bowels; accordingly he prescribed a mercurial cathartic, on first seeing a patient with dysentery, and followed with opium, alone or combined with ipecac and acetate of lead. With those remedies he usually gets satisfactory results. Opium, he remarked, had a better effect than its alkaloid—morphia. In reply to a question from Dr. Cline, why, if this disease be produced by hepatic congestion, there was not congestion of the whole intestinal tract, he would say that it was due to the anatomical reason of the lower bowels being at a greater distance from the liver rather than to the laws of gravitation, as Dr. C. contended.

Dr. Humphreys reported the history of a case of abscess of the brain, which, on motion of Dr. Hartman, was received with the thanks of the Society, and ordered sent to the OHIO MEDICAL JOURNAL for publication*. After transacting the usual miscellaneous business, the Society adjourned.

SELECTIONS.

SURGERY.

THE RECOGNITION AND REMOVAL OF FOREIGN BODIES FROM THE CORNEA. (J. D. RUSHMORE, M. D., in *Brooklyn Proceedings*.)—While these bodies are frequently easily removed, they nevertheless assume a position of importance from the occasional difficulty of recognition and removal, from ulceration of the cornea, and subsequent corneal opacities; from iritis and deeply seated inflammation in the uveal tract, and (rarely) from the loss of the eye.

The scope of this note is to call attention to the importance of using, with all possible care, the methods for detecting a foreign body in the cornea, and to emphasize the importance of employing that method of removal which gives the least possible pain to the patient, and is followed by the least possible injury to the cornea. These results are secured by the method described,

*[This report will appear in the November issue.—Eds.]

in part, in Bader's work, "The Human Eye;" but unmentioned, or spoken of as of inferior value, in several of the modern and most popular text books on ophthalmology. The method of detecting these foreign bodies is usually easy of application and satisfactory. We need a bright light, either natural or artificial, shining directly or obliquely into the patient's face, the character and direction of the light being determined, in part, by the habit of the examiner, and also by the tolerance of the eye under examination. Lifting the upper lid sufficiently to expose the cornea, but not further, the foreign body, in the majority of cases, is easily seen, especially if dark in color and of recent introduction. We are hardly likely to mistake anything for the foreign body except minute pigment patches on a light colored iris, and these are recognized as such, and located behind the cornea and not on it, by directing the patient to roll the eye obliquely in almost any direction, when their true position is made out.

The difficulty in recognition is not in differentiation, but in detection. The causes of failure are either an insufficient quantity of light, a photophobic eye, the small size of the object, or its light color, the presence of ulceration in the cornea, a dark iris or dilated pupil (when the foreign body is of dark color). Sometimes light colored specks of sand or glass are blown or thrown into the eye; in such a case a probe brought into contact with the supposed object will detect it by the gritty feeling; if it is of vegetable origin or a bit of straw, a moistened camel's hair brush will recognize, and, at the same time, remove it. These cases of foreign body in the cornea are constantly occurring to every practitioner, and are about twelve times as frequent as foreign bodies in or on the conjunctiva. The directions for their removal, as given in the standard text-books on ophthalmology (with perhaps one exception), are calculated to inflict an unnecessary amount of pain on the patient. Let me quote: Wells says: "As a rule I always prefer to keep the eyelids apart with the stop speculum, and to fix the eye with a pair of forceps," but he admits that this causes some degree of pain, counterbalanced, however, by the control it gives of the eyes. Carter says: "A surgeon who does not often operate upon the eye, and who wishes to remove an imbedded foreign body from the cornea of a sensitive person, will save both time and pain by placing the patient in the recumbent posture, separating the lids with speculum and fixing the eye with conjunctiva forceps."

Williams suggests the use of a brush or a small stick, such as are used for toothpicks, in cases where the foreign body is only slightly imbedded. In other cases the lids are separated by the finger of the surgeon (standing in front of the patient), who endeavors by quick maneuvers to lift the foreign body from its position, keeping on his guard against sudden movements of the globe, that the instrument may neither scratch the cornea nor be thrust through it.

Wecker says: "In patients who are unruly these fragments of iron may be readily removed by keeping the lids open with a spring speculum and fixing the globe with forceps. It is better to do so than to try to steady the eye by pressure with the finger, for it is simply impossible to do this if the patient is at all nervous."

Stellwag says nothing about foreign bodies in the cornea, except as they bear on the etiology of inflammatory troubles.

Dixon very humanely and wisely suggests that the movements of the eye be commanded by placing one finger on the sclerotic, just above the cornea, and the other against the inner side of the globe.

Bader says (I quote in full, and urge the adoption of his directions): "Standing behind the patient, who is seated and rests his head against our chest, we raise the upper lid with the first finger of one hand, and having directed the patient to look down, place the tip of the same finger upon the sclerotic, just above the cornea. We then depress the lower lid with the tip of the middle finger of the same hand, and, at the same time, place it upon the eyeball, near the inner (or outer) and lower margin of the cornea." In this way we have complete control of the eyeball, and do away with the use of the speculum and forceps, and inflict little or no pain upon the patient. By a little increase in the pressure (but still not enough to produce pain), we secure two additional advantages, first, a tense condition of the cornea, which does not easily dimple with our efforts at the removal when the spud or cystotome becomes necessary; and, secondly, an anesthetic condition of the cornea. Anesthesia of the cornea is very well known as a symptom of glaucoma, the essence of which is an increase in the tension of the eye, produced by pressure from within; it occurred to me that a similar condition could be produced by pressure from without, and for that purpose I made the trial on some two dozen patients, whose eyes were free from any corneal irritation, and found in every case the same testimony as to the less amount of pain produced when the cornea was touched with a probe while the globe was under pressure than without. Sulphate of atropia has an anesthetic effect on the cornea, and until recently I had been in the habit of instilling a drop or two of a solution into the eye (two grains to the ounce of water), after locating the foreign body and before removal, and found it advantageous to the patient in diminishing pain, but objectionable on account of the blurring of the sight for several days, and on account of the occasional difficulty in recognizing the foreign body against the dark background of the dilated pupil. If the foreign body is of light color the dilatation is desirable. The use of firm pressure renders the atropine unnecessary as an anesthetic. I have never found general anesthesia necessary in this class of cases except in a child.

With the eye fixed, and the cornea made as anesthetic as possible by

pressure, the only thing remaining is to remove the foreign body. This done in one of three ways:

First. By the use of a small piece of wet cotton on a cotton carrier, swept with a rotating motion gently over the cornea, producing no pain and removing all bodies lying upon or loosely attached to the cornea (a method suggested by Dr. C. R. Agnew, of New York, in a clinical lecture reported in the *N. Y. Med. Rec.*, Aug. 7, 1880.)

Second. By the employment of the magnet, which, as I have used it during the past four or five months, has given me a good deal of satisfaction. The instrument used is a modification of a magnet devised by Dr. Gruening of New York, and described in the *N. Y. Med. Rec.*, May 1, 1880, for the removal of particles of steel or iron from the vitreous chamber. I have found it of value in removing these small iron or steel particles from the cornea.

Third. If the cotton and magnet fail, a resort to the cystotome, after a trial and failure with the spud, has been found necessary. With this, little or no harm to the cornea need be inflicted, although it is a scratching instrument. In some cases we need concentrated light, which can be obtained by a strong double convex lens, held by our unemployed fingers, if skilful, better by an assistant, and in a few cases the use of a double convex lens of about six or eight inch focus, placed in a trial frame for spectacles, will magnify a very small foreign substance sufficiently to make its removal easy.

The modification mentioned of Dr. Gruening's magnet is rather convenient than important. His magnet, as now made, has a flat point at each end in order to take advantage of the polarity of the magnet, for it is found that these small particles of steel and iron, by hammering and friction, become magnetized. I have simply had a magnetized spud, a magnetized Graefe's cystotome, and a cotton carrier added to the case.

REMOVAL OF FRECKLES.—The following formula is said to be efficacious for the removal of freckles: Hyd. bichlor. grs. vj; acid. muriat. dil. ʒi; aquæ, ʒiv; alcohol., ʒij; aq. rosæ, ʒij; glycerinæ, ʒj. M. Apply at night and wash off with soap in the morning.—*Canada Lancet*.

NEW METHOD OF APPLYING CROTON OIL.—In applying croton oil to ringworm, etc., Dr. Ladrett uses a mixture of one hundred parts of croton oil with fifty parts of wax and fifty of cacao butter, and makes it into stick-like cosmetic by the aid of a mould, so as to apply it with great accuracy both as to extent and depth.

TARSALGIA.—Dr. Lee claims good results from the treatment of tarsalgia with pediluvia of hops repeated twice a day; three or four days are generally sufficient to effect a cure of the disease.

THE DIFFERENTIAL DIAGNOSIS OF FRACTURES AND DISLOCATIONS OF THE FEMUR AT THE HIP-JOINT.
 Tabulated by H. A. Wilson, M. D., Lecturer on Fracture Dressings in the Philadelphia School of Anatomy.

	INTRACAPSULAR FRACTURE.	EXTRACAPSULAR FRACTURE.	ILIAC DISLOCATION.	SCIATIC DISLOCATION.	PUBIC DISLOCATION.	THYROID DISLOCATION.
1. AGE.	Most apt to occur in advanced life, after 55 years.	May occur at any period of life.	Adult life.	Adult life.	Adult life.	Adult life.
2. CAUSE.	Usually result of slight cause.	Usually direct and severe violence.	Always severe violence.	Severe violence.	Severe violence.	Severe violence.
3. CONDITION OF LIMB.	Shortening: at first slight, but apt to increase to 2 or 2½ in. Readily effaced by extension, but recurs on discontinuance.	Great shortening at first, which continues about 1½ to 2 in. May be effaced, but recurs on discontinuance of extension.	Shortening 1½ to 2 inches. Only effaced by reduction. Does not then return.	Shortening ½ to 1 inch. Only effaced by reduction. Does not then return.	Shortening ¾ to 1 inch. Only effaced by reduction. Does not then return.	Lengthening 1½ to 2½ inches.
4. CREPITATION.	Indistinct.	Very distinct.	None.	None.	None.	None.
5. MOBILITY.	Preternatural.	Preternatural.	Immobility in a fixed and constrained position.	Immobility in a fixed and constrained position.	Immobility in a fixed and constrained position.	Immobility in a fixed and constrained position.
6. POSITION OF KNEE.	Everted.	Everted.	Overlaps its fellow.	Inverted.	Everted.	Stands out and away from its fellow.
7. POSITION OF FOOT.	Strongly Everted.	Everted.	Inverted: big toe pointing towards opposite tarsus.	Inverted, big toe pointing towards greater toe of opposite side.	Everted.	Straight.
8. POSITION OF GREAT TROCHANTER.	Moves freely with leg, as it were, on a pivot.	Preternatural mobility.	Higher than normal.	Higher and farther back than normal.	Higher and nearer median line in front.	Lower than normal.
9. POSITION OF GLETO FEMORAL CARK.	Nearly normal.	Higher than normal.	Higher.	Higher.	Higher.	Lower.
10. POSITION OF HEAD OF FEMUR.	Cannot be distinguished, except in very thin persons.	Cannot be felt.	Can be distinctly felt on dorsal surface of ilium.	Is buried in acetabulum; cannot always be felt.	Easily felt over pubes.	Is in thyroid foramen. Can sometimes be felt.
11. VACUITY.	No vacuity over acetabulum.	No vacuity.	Vacuity.	Vacuity.	Vacuity.	Vacuity.

IS THERE A SPECIFIC URETHRITIS?—In the September number of the *New York Medical Journal and Obstetrical Review*, Dr. P. A. Morrow handles the question of the specific or non-specific nature of gonorrhea. After a statement and a close analysis of the arguments for and against specificity he concludes that the position of the *virulists* rests altogether upon pure hypothesis, and is wholly untenable, while all the facts—experimental, clinical and pathological—are overwhelmingly in favor of the non-specific character of gonorrheal inflammation. When we apply the gauge of specificity to gonorrhea it corresponds to none of the conditions of an undoubtedly specific inflammation. No artificial production of any disease belonging to this group is possible; a specific disease is the product alone of a specific poison. Gonorrhea, on the contrary, may be due to a variety of causes—contagious, irritant (mechanical or chemical), diathetic, etc. Again, in all specific diseases there is between the time of infection and the first expression of the disease a period of incubation. No incubation, properly so called, characterizes gonorrhea. A drop of this same gonorrheal pus, which may require two or three days to excite suppuration of the urethra, will develop such effect in a few hours when applied to the conjunctiva, showing that the so-called incubation depends not upon the quality of the exciting cause, but upon the susceptibility of the mucous membrane. Another distinctive peculiarity of this group is that a single attack of the disease confers almost complete security from another attack—a peculiarity precisely the opposite of what is observed of gonorrhea. The morbid poison of specific inflammation, once in action, continues until the textural predisposition to it and special stimulus is exhausted. The patient is incapable of regenerating the poison or of being affected by it when exposed anew. Both of these conditions are negatived in the clinical history of gonorrhea. Finally, specific inflammation determines special pathological changes and demands special treatment. Identical pathological processes are met with in urethritis from various causes, and the most radical of virulists treat all urethral inflammations alike.

A NEW WAY OF APPLYING NITRIC ACID AS A CAUSTIC.—W. R. Spears (*London Practitioner*) claims that the following mode of applying nitric acid to a nevus has proved quite satisfactory in his hands: He breaks off the neck of an ordinary two-ounce bottle and inverts this over the nevus, pressing the rim firmly down on the skin. This forces the tumor well up into the neck of the vial, when the acid can be applied by means of a pipette and easily brought into contact with the whole surface of the tumor. Before removing the bottle-neck, the excess of acid should be mopped out by means of cotton wool upon a probe. Nitric acid thus applied produces a circular slough, with clean-cut edges, and its action is confined to the tumor alone.

producing no subsequent cicatricial contraction or distortion. The operation is attended with but little pain, and the results are all that could be hoped for. One year after an operation for relief of nevus, performed as above stated, the scar was scarcely perceptible, becoming only slightly crimson when the child cried.—*Louisville Med. News.*

OBSTETRICS.

PREGNANCY VOMITING.—(HENRY GIBBONS, JR., M. D., in *Pac. Med. and Surg. Jour.*)—Dr. Sims contributes a paper on pregnancy vomiting to the *Archives of Medicine* (June, 1880), in which—after referring to the causes as suggested by Graily Hewitt, flexure and malposition of the uterus; by Dr. M. O. Jones, of Chicago, granular erosion of the cervix; and by Dr. Copeman, of England, induration and contraction of cervix—he states that he also has resorted with success to the treatment proposed by these writers, viz.: Support for the flexed uterus, nitrate of silver applications for erosions, and dilatation of the cervix when contracted. Copeman's method consists in gradually forcing the finger into the os and carrying it along till the first joint of the finger enters the cervical canal, taking care not to push it so far as to impinge against the os internum. Dr. Sims reports a case, the only one on record, in which the latter plan being fully adopted, a miscarriage resulted, showing that it was not devoid of danger. He attributes this result partly to the pushing of the fundus backward by the hand on the abdomen, to prevent excession, while the finger of the other hand was forced into the cervix, and partly to a tendency to miscarry.

In discussing this subject of morning sickness before the Berlin Medical Society, Dr. L. Rosenthal recognizes three varieties: (1) the ordinary sickness; (2) the sickness following every meal, and lasting even after quickening, but not destroying appetite; (3) the rare form often accompanied with diarrhea and salivation and failure of nutrition, and sometimes followed by death. Of the third variety, Paul Dubois saw 20 fatal cases, and of 118 cases given by Gueniot, 46 proved fatal. "The condition is doubtless dependent upon some abnormality of the uterus, and generally of the cervix; but since such abnormalities are so very common, why is this effect so rare? Because a neurotic tendency must be present also as a predisposing cause. There are many analogies between hyperemesis gravidarum and nervous or hysterical vomiting." Dr. Rosenthal states that ice, ipecac, calumba, and oxalate of cerium, have enjoyed the most repute in the treatment. He has resorted to Copeman's procedure in two instances with success, and recommends it even in moderate cases; while Dr. Sims holds that it should be reserved for those which are urgent and rebellious.

The application of a ten per cent. solution of nitrate of silver to the cer-

vix every two or three days, is strongly advocated by Dr. Welponer (*Wein. Med. Woch.*, May 22, 1880), who has thus cured three obstinate cases that resisted all other means. Dr. J. W. Hickman (*Med. & Surg. Reporter*, December 13, 1879), urges larger doses of the oxalate of cerium—ten grains as often as necessary taking care to give the first dose half an hour before the patient rises from bed. He believes that arsenic is indicated when the vomiting is followed by painful retching, and that ingluvin stands first among the agents reviewed.

Dr. J. S. Forwood (*Med. & Surg. Reporter*, July 10th, 1880), during twenty years' practice, has treated two hundred or more cases of morning sickness with an infusion of calumba, ginger and senna, and asserts that this combination is as much a specific in pregnancy vomiting as quinine is in intermittent fever. His formula is:—

R Rad. calumbæ cont: rad. zingiberis.....aa ʒss.
 Fol. sennæ.....ʒj.
 Aq. bullient.....Oj.
 M. Ft. Infus.

Sig. Wineglassful before each meal.

Dr. Pinard (*Annales de Gynecologie*, May, 1880), has used in an obstinate case the inhalation of oxygen. After seven weeks of vomiting, ten litres of oxygen were inhaled in one day, twelve on the second day, and fifteen on the third, when the patient was cured. Dr. Hertzberg (Berlin), uses three grains of chloral in solution every two hours until vomiting stops; and, finally, Dr. W. W. Potter (*Am. Jour. Obstet.*, Jan., 1880), advocates absolute rest for the stomach, no food or drink being allowed by mouth; all aliments and medicines to be given per. rectum.

No mention is made in any of the references to the use of strychnia, which I have found of signal service in a large proportion of cases; while in others it has failed completely; nor of the viburnum prunifolium, which in many cases has proved an efficient uterine sedative. In a recent case of distressing pregnancy vomiting under my care, immediate, though temporary, relief followed upon placing the patient in Sims' position, and distending the vulva. The uterus was thus permitted to rise from the hollow of the sacrum into which it was pressed. The symptoms returning in a modified degree were treated with the viburnum, which appeared to exert a decidedly favorable influence.

The variety of methods above mentioned clearly indicates the wisdom of studying the causation of morning sickness in any given case before attempting its treatment. If it be due to a fallen or flexed uterus, we cannot expect general treatment to have any immediate effect; and if there be simply a hysteroneurosis, local medication may aggravate rather than benefit.

TREATMENT OF POST-PARTUM HEMORRHAGE.—(*Lyon Med.*—*Boelz*, of Tokio, Japan). The method proposed by the author has, over all other known means, the advantage of being very simple and apparently very efficacious. It consists in tamponing the vagina with the clenched fist, whilst with the other hand we apply the labia majora like a cuff, tightly around the wrist, so that not a drop of blood flows out. During this time an assistant compresses the uterus from above downwards through the abdominal wall, or else applies the vulva around the wrist of the operator, whilst the latter with the free hand compresses the uterus. The method is simple, rapid, may be applied in all cases and really seems to be of great efficacy. Records of numerous cases follow.—*Detroit Lancet*.

PREGNANCY AT AN ADVANCED AGE.—Dr. J. J. Taylor, Stretor, Illinois (*Chicago Journal and Examiner*, August, 1881), recently delivered a woman aged fifty-four, of an eleven pound baby.

MEDICINE.

ACUTE MILIARY TUBERCULOSIS MISTAKEN FOR TYPHOID FEVER.—Senator reports a case (*Berlin. Klin. Wochenschrift*), of acute miliary tuberculosis in a man aged 48, who was for three weeks in hospital under his care, in whom the disease was not suspected. The most prominent symptoms were enlargement of the spleen, fever, roseola, and suppurative parotitis, and at the beginning epistaxis and hiccough. Upon these symptoms, and absence of those pointing to the lungs, the diagnosis of typhoid fever was made. On post mortem, there were no appearances of typhoid, but general tuberculosis of both lungs, spleen, liver and kidney, and enlargement of the bronchial glands.—*Med. Times*.

DO THE AURICLES CONTRACT?—Dr. G. A. Harman, of Lancaster, Ohio, holds the opinion (*Med. Record*) that the auricles of the heart do not actively contract. He bases this view upon the anatomical reasons, that their walls have very little muscular fibre, being composed chiefly of serous and fibrous tissue; that their capacity is much less than that of the ventricles; that their openings for the exit of the blood are so much larger than the openings for entrance; and that the veins emptying into them have no valves. He also gives certain mechanical reasons: If the auricles contracted, the blood would be arrested in the veins, or even forced backwards; the auricles would only discharge their own contents, which would be insufficient to fill the ventricles; if a hollow needle be thrust into the auricle, the blood merely wells up through it, whereas it spurts up if thrust into the ventricle.

THE INDIGESTION so often accompanying Phthisis has always been very troublesome to physicians, and the Cod-Liver Oil preparations, while often relieving the pulmonary troubles, act adversely on the digestive organs. A new idea in pharmacy has been brought forward by the Powell Manufacturing Co., of Baltimore, who have combined into a palatable preparation beef, cod-liver oil and pepsin, thereby giving to the profession a thorough tonic, nutritive and digestive, which is vouched for by a great many reliable practitioners as not only benefitting their patients suffering from Phthisis and Tuberculosis, but it has thoroughly corrected all the symptoms of indigestion, thereby doing double service. It is worthy of a trial.—*Review*.

LIPPERT'S PILL, for Pulmonary Tuberculosis :

R

Creasoti.....	
Ext. belladon.....	aa gr. $\frac{1}{6}$
Ext. opii.....	gr. $\frac{1}{2}$
Ext. rhei.....	gr. $\frac{1}{3}$

M. Ft. pil. j. Sig. One pill three times a day.

REVIEWS AND BOOK NOTICES.

Lectures on the Diagnosis and Treatment of Diseases of the Chest, Throat and Nasal Cavities ; by E. Fletcher Ingals, A. M., M. D., lecturer on Diseases of the Chest and Physical Diagnosis, Rush Medical College, etc. With 135 illustrations. New York: Wm. Wood & Co. 1881. 8vo. Pp. 437.

"These lectures are designed to present a complete exposition of the subject of Physical Diagnosis so far as it relates to diseases of the chest, throat and nasal passages; to give the essential symptoms of each disease; to point out the symptoms and signs which are of most value in a differential diagnosis; and to outline briefly the proper treatment for the various affections." The above quotation from the preface explains the author's intention in issuing this work, and it is our province to consider how far he has succeeded in his design, and the real value of the work to the profession.

The first eight lectures, eighty pages, are occupied with the subject of physical examination of the chest. The methods of inspection, percussion, auscultation, etc., are fully described, and the use of the instruments employed clearly illustrated. The six succeeding lectures are devoted to the diagnosis and treatment of diseases of the lungs. As this is compressed into

eighty-two pages, it is evident that each disease must be briefly considered. Yet the diagnosis is carefully exhibited, and is made clearer by tabulating the symptoms of two diseases liable to be confounded, in parallel columns.

Lectures fifteen to twenty show the manner of investigating the heart. This portion comprises fifty pages, and is sufficiently full and clear.

Lectures twenty to twenty-three, forty-two pages, consider heart and aorta diseases.

Lectures twenty-three to twenty-six serve to explain the methods of examining the larynx, fauces, and nasal cavities. Laryngoscopy and rhinoscopy are fully explained, and all instruments are described and illustrated. The subject is also rendered more clear by various cuts showing the normal appearance of the larynx, vocal cords, etc.

The remainder of the volume is taken up with the diagnosis and treatment of affections of the throat, larynx and nasal passages, and an appendix of formulæ.

In viewing the work as a whole, we may concede that the author has succeeded in the departments of physical examination and differential diagnosis. The description of the manner of diagnosis of the essential characteristics of the several affections and their contrasting symptoms, is clear and succinct. The text comprises all that is necessary to be acquired by the student, and will be of use to the physician in practice for ready reference. The department of laryngoscopy is usually made a specialty, and the consideration given to it here, though sufficient for the general practitioner, would hardly suffice for the specialist. The portion of the volume devoted to treatment was not originally contained in the lectures as delivered. Here the skeleton of therapeutics furnished will be of more value to the practicing physician. It lays down broad lines of treatment, without specifying details.

In conclusion: the student who has acquired all that is taught in this work, will be fairly qualified, so far as the knowledge can be obtained from books, to diagnose the diseases treated of, and will have the leading ideas of treatment.

The book is well printed, the illustrations are mainly original, and all are appropriate.

G. A. C.

How a Person Threatened or Afflicted with Bright's Disease ought to Live; by Joseph F. Edwards, M. D. Peasley Blakiston, Philadelphia. 1881. Pp. 87.

We regret that duty will not permit us to commend this little work. Although probably written with honest intentions, its influence cannot but be pernicious. It closes with the "trust that it may carry tidings of comfort and cheer, and prove of benefit to my friends with Bright's disease." How comforting and cheering to a patient with this disease must be the detail of cases of sudden and unexpected explosions, and fatal terminations given on

pages 21-24. And since it is addressed to those who are "*threatened*" with Bright's disease, its range extends, of course, to the whole community, and the profession must look for a large increase of business in the shape of patients nervous about the condition of their urine. Thus:

"If any of my readers have felt unwell, low-spirited and weak, for some time, without any definite symptoms, let them find out whether or not they have Bright's disease."—p. 35.

"If you ever experience a departure from perfect health, no matter how slight this departure may be, and if your symptoms do not indicate disease of any organ, but seem merely to be the temporary result of some excess in eating or drinking, work or exercise, or some slight exposure; if these symptoms continue for any time after removal of the cause, ask your physician to make an examination of the condition of your kidneys."—p. 25.

Such paragraphs cannot but throw doubt on the probability of the honesty of the author's intention, and seem to indicate a *purpose* in the book. But, to be brief, there is nothing new or valuable in a hygienic point of view for the physician; the value of milk, as a diet, is but just noticed. As a book for the laity, we have already given our opinion. We purchased a copy to put into the hands of a patient, but concluded to retain it in our own.

J. C. R.

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COTT & HANN, Publishers, Columbus, Ohio.

THE STATE MEDICAL SOCIETY AND AUXILIARY SOCIETIES.

As the point which will probably be the most important, in the discussion relative to the adoption of the proposed new Constitution, is the relation which is to exist between these bodies, it may be profitable to consider in what relation they now stand to each other, and the effect of the proposed change.

The old constitution provides for a "Committee on Medical Societies," whose duties shall be to "consider the report on the organization of such Medical Societies as desire to become auxiliary to the State Medical Society," and make an annual report. Nothing is said about delegates from auxiliary societies, their duties, rights, or privileges. Where the authority to send delegates to the State society, their number, etc., is derived, does not appear. As a matter of fact, how does the question now stand? Local societies send, if they please, and many of them are very careless of this privilege, a few delegates, rarely, if ever, the full number they are entitled to, to the State society. And what do they do there? They attend the meetings, perhaps participate in the debate, though we are not positive that even this is permitted, except through courtesy, and—join the Society. As the right to vote is denied them, how can they make their influence felt in any other way? The leading idea contained in the word "auxiliary" is helping; in what manner, then, do the local societies help the general society under the present arrangement? And in what possible particular is the general society of any advantage to the local society? So far as any practical aid to either is concerned they are essentially separate bodies, neither influencing the other to any appreciable extent. So far from being auxiliary, the local societies, particularly those embracing a number of counties, or even a fourth part of the State, are a direct injury to the State Society in concentrating medical interest in themselves and to that extent hindering the natural growth of the larger society.

Having shown that the State and local societies are in no proper sense auxiliary or helpful to each other, let us see what the new constitution proposes in that direction. Here a radical change is presented to us. So far from having no voice in State Society proceedings, the delegates from auxiliary societies shall constitute the State Society, in connection with the present existing membership of that body. By this proposition the State Society is to receive a large amount of fresh blood—by transfusion, as it were—and no one can doubt its eminent need of it.

But, as increased privileges are accompanied by increased duties and responsibilities, the auxiliary societies are to pay the expenses of the State Society. This is all it amounts to, as the present members all belong to local societies and will be taxed only as such members. Will the local societies consent to do this? Will they apply to become auxiliary with this liability to assessment? We think many will do so as soon as the opportunity is offered them, and in time all, or nearly all.

We believe that a large majority of the profession in the State is not really indifferent to the State Society, but interested in its prosperity and desirous of being connected with it, were occasion favorable. This is indicated by the large local accessions to the Society when meeting at different

points in the State. Many of these memberships die out, it is true. But why? In order to continue a member of the State Society, it is necessary to pay the annual dues. As but a small proportion of members attend the annual meetings, the dues of the large proportion get in arrears, till finally the amount is so large that it appears to be a burden and the member is dropped. If the annual dues could be paid without trouble, the membership would not be so depleted. In this regard, the plan proposed will be, in our judgment, of great assistance, as it will enable each member to pay his dues at home, and without attending the meetings. This may seem but a small matter, but practically it is of greater importance than it seems.

We believe, therefore, that many, if not most, of the local societies, will willingly become auxiliary to the State Society on the basis proposed.

But suppose a case where but a bare majority of members shall vote to become auxiliary, or even a small minority utterly refuse to join the State Society in this manner—and who shall deny their right to do so—what shall be done then? It is plain that if the minority shall refuse to be bound by the majority in this respect, one of two things must happen: either the minority must sever their connection with their society, or the society cannot become auxiliary, *as a society*, to the State Society. We assume that no one would desire to drive out any such members, even in the interest of the larger society. Shall the local society, then, not become auxiliary, or shall it become auxiliary to the extent of its assenting members? The latter seems to us by far the preferable course.

Let us take the case of a single local society, the one to which we belong, for example. About one half of its members are now members of the State Society. If all doors of entrance to the State Society are closed, except that through the local societies, the question of becoming auxiliary must be decided at once, or all accessions to the State Society from that society must cease. Doubtless the question would be decided in the affirmative. But what shall be done with those members who vote negatively and decline to pay the assessments? Our idea is to omit them from the roll of members from that society, and assess only such as consent to join and pay dues. Who shall make up the roll and collect and forward assessments to the treasurer? The joining members are competent to select their own secretary who shall transact their business with the State Society. In this way, no society would be in contempt for non-payment of dues by any of its members. Take the case, again, of a society who may vote not to become auxiliary, and which contains members who desire to join the State society—how can they do so? In the same way. Let the number of members who wish to join the State Society, elect their secretary and forward their roll of members to the general secretary. Let the State Society recognize these members as the auxiliary society, if you please. At any rate, there should be free op-

portunity to come in and no compulsion. Of course, the basis for appointing delegates is the actual number who have joined and paid dues.

If these or similar views shall prevail in the decision of the new constitution, it will be necessary to make certain changes in the wording of it, notably in Article IV. In view of which we would suggest to the committee who have this matter in charge, to draft an alternate article to be submitted to the society in case the one now under consideration should fail of approval.

We have thus, crudely perhaps, presented our views with regard to the relation which should exist between the State and auxiliary societies. In our opinion, much might be gained, and certainly nothing could be lost, by inviting the local societies to become auxiliary in fact and not merely in name. The present arrangement is helpful to neither. We have heard no discussion of the subject, except the very limited one at the last annual meeting, and we hope the members of the society will present their ideas to the JOURNAL for the enlightenment of the society.

G. A. C.

THE AUTOPSY OF PRESIDENT GARFIELD.

The autopsy has been a surprise to all. No one had claimed, or suggested as probable, that the bullet took such a course as it now appears it did. We had always claimed that the location of the ball had never been demonstrated, and that the pain experienced in the feet for a number of hours after the injury had never been satisfactorily accounted for on any other hypothesis than that the cord had been affected. Still, the patient rallied well, and remained free from any further indication of spinal injury, such as paralysis of the legs, or of the bladder or bowels; therefore the first impression, of an injury involving the spinal column, seemed untenable, and was, we believe, so regarded by all. But all were wrong.

The autopsy makes clear one thing: that any attempt at following up and removing the ball—as advised by Hammond, of New York, and a few others—would not only have proved unsuccessful, but would have resulted in speedy, if not immediate, death. Moreover, if the wound had been probed, the probe would have passed in any other direction almost as easily as along the course of the ball. The doctrine of no probing of penetrating wounds of the cavities receives strong support from this case.

While the mistake in diagnosis was about as great as it could well be, it, seems to have been inevitable. Surgeons can appreciate this fact, but the laity cannot; and it is fortunate for the particular surgeons in charge, as well as for the profession in general, that it is so universally conceded that the treatment was correct and unexceptionable, and that nothing was done, or left undone, that would have been ordered differently had the true condition

of affairs been known. It is the general acceptance of these facts that leads the people to quietly acquiesce in the result, when were the conditions different they would be filled with the most violent rage at those whose blunder had caused the fatal result.

The reasons for the mistake are plain: At first the wound was supposed to be a penetrating one, and probing unjustifiable; hence nothing was learned. Later, when an examination was made, carefully and prudently, nothing was found from the symptoms to indicate an injury of the spinal column, liver, peritoneum, or any other important structure, while there did appear a sinus, freely discharging, leading down the lumbar muscles, along a very probable route, to the iliac fossa. No human being, at that time, under such circumstances, would have made any other diagnosis than the one then made, viz.: that the sinus indicated the course of the bullet.

While it may well be conceded that the mistake was unavoidable, that the making of it resulted in nothing detrimental to the patient, and that inevitable death was, by the treatment, delayed to the farthest possible moment, still, notwithstanding all this, neither the eminent gentlemen in charge nor the Science of Medicine, have gained anything in the popular mind by the treatment of this case, but rather, we fear, the reverse.

The history of this case furnishes a page to medical literature that is far from pleasing to ardent optimists.

WE learn from the *Baltimore Sun* of the 23d ult., that Dr. Richard Gundry, so well known to the medical profession of Ohio, has recently been elected to the Chair of Materia Medica, Therapeutics and Diseases of the Mind, in the College of Physicians and Surgeons, of Baltimore, Md. It will be a pleasure to Dr. Gundry's many friends here to know that he is duly appreciated by the profession in his new home. We heartily congratulate the College upon so valuable an addition to its faculty.

AN ERRONEOUS impression has got abroad, through the medium of the newspapers, and certain medical journals, that the Queen threatened to withdraw her royal patronage from the International Medical Congress if female doctors were allowed to participate therein. It now appears that the story was entirely without foundation. The decision to exclude women was solely the result of the deliberate convictions of a large majority of the committee.

BILLINGS give four rules—which may well be known as Golden—for the preparation of an article for a journal: 1. Have something to say. 2. Say it. 3. Stop as soon as you have said it. 4. Give the paper a proper title.

THE OHIO MEDICAL JOURNAL.

Vol. I.

NOVEMBER, 1881.

No. 5.

COMMUNICATIONS.

REPORT OF THE CASE OF PRESIDENT GARFIELD.

BY D. W. BLISS, M. D., WASHINGTON, D. C.,

Surgeon in Charge of the Case.

The great interest which has been manifested by the medical public in the surgical history of the case of President Garfield, and my close and direct connection with it as surgeon in charge, from the time I was summoned until his death, imposes upon me the obligation of giving, even at this early date, a general summary of the salient points connected with its diagnosis, treatment, and pathology.

It seems important at this time, in view of an implied demand on the part of my professional brethren throughout the country, that, at the risk of anticipating the complete and technical report, which will appear in due time under the editorial direction of J. J. Woodward, Surgeon U. S. A., and signed by all the gentlemen associated with me, that I should present such data as may serve to give the leading facts of the general plan of management of the case, the reasons for making the diagnosis, and such other points as were developed in its study which may serve to explain the most important autopsical lesions.

Perhaps these conditions can be fulfilled in no better way than by a summary in which the main and important data are given in the form of a general medical history. It is, perhaps, unnecessary to state at this point that I shall not undertake to reproduce the daily bulletins, nor a minute history of the dietetics, as they are not necessary to enable the profession to comprehend the general treatment as applied to the case, in view of the erroneous diagnosis made, or to the conditions presented by the autopsy.

Immediately after the shooting of President Garfield, on the morning of July 2d, I was summoned by the Secretary of War to take charge of the case. I was conducted to an upper room in the building, where I found the president lying upon a mattress, in a semiprone position, on the left side.

He presented the appearance of perfect collapse, the lines of expression were lost, there was extreme pallor, sighing respiration (about eight or ten per minute); pulse exceedingly small, feeble, and frequent, and ranging about 110. The ingesta lying upon the mattress indicated that he had recently vomited, and upon mentioning the fact the President replied that he had not, but assurances from the physicians and others, with the evidences before me, indicated that the emesis had taken place while he was unconscious. Large beads of perspiration stood upon his face, forehead, hands, and forearms.

There were present at that time Dr. Smith Townsend, the Health Officer of the District, and Dr. Purvis. The former, who was the first physician to reach the wounded President, informed me that he had administered half an ounce of brandy and a drachm of aromatic spirits of ammonia internally. The President's coat had previously been removed; the remainder of his clothing was intact, except that over the region of the wound, which was so arranged as to expose the point of entrance of the ball.

The President complained of a sense of weight and numbness, and subsequently of a tingling sensation and pain in the lower extremities. With a view of exploring the wound to ascertain the course of the ball and the organs involved in its passage, I introduced a Nelaton probe, which took a direction downward and forward, on a line which would represent a point of exit four inches to the right, and nearly directly opposite to the umbilicus. The point of entrance of the ball, which was oval and sharply cut, was on the right side, four inches from the median line of the spine, and on a line with the eleventh rib. A slight discharge of blood was oozing from this orifice, and had soiled the clothing. I passed the probe in the direction previously indicated, through the tenth intercostal space, for a distance of three and one-half inches from the surface of the body, to what appeared to be a cavity, and I was unable to detect any foreign substance beyond the rib to indicate the presence of fragments of bone or the missile. In attempting to withdraw the probe, it became engaged between the fractured fragments and the end of the rib, and could not be liberated until pressure was made upon the sternal end of the rib so as to slightly elevate its fractured extremity. I then passed the little finger of my left hand to its full extent into the wound, which developed the character and extent of the fracture of the rib, and was only able to reach a point on a line with the inner surface of the rib, where it came in contact with what appeared to be lacerated tissue or comparatively firm coagula, probably the latter. After withdrawing my finger, I made an exploration with a long, flexible silver probe, which I suitably curved before entering, and gently passed it downward and forward, and downward and backward in several directions, with a view of indicating the course of the ball, if it had been deflected by contact with the rib, and meeting with resistance from soft parts I desisted and excluded the probability of deflection,

being inclined to the opinion that the ball had entered the liver, which, if true, would not warrant further exploration in that direction.

By this time a large number of physicians had gathered in the room, and I gave them a hurried account of my examination, and expressed the opinion that no further explorations should be made during the stage of collapse, and that stimulants by the stomach should not at that time be given, as the President was suffering from constant nausea, and in his condition of collapse absorption would not take, and further that they would become a source of additional irritation. In these opinions, expressed at the council in one corner of the room, the physicians concurred. The gentlemen in attendance at this time, so far as I can recollect, were Drs. Townshend, Purvis, Reyburn, Norris, Lincoln and Ford.

The President repeatedly requested that he be taken to the White House, and after further consultation and a full understanding of the manner and detail of his transfer, his speedy removal was agreed upon. Temporary dressings were applied to the wound, when the President was lifted on to the mattress, carefully placed upon a stretcher, conveyed down-stairs, and placed in an ambulance in waiting. The vehicle was driven with great care over the rough pavement of Sixth street, about forty yards distance, until reaching the smooth asphalt pavement of Pennsylvania avenue. The great rush of people, in the excitement, made it necessary to move rapidly. On the way there was no disagreeable motion in the carriage, which fact is attested by Dr. Townshend and others who accompanied me in the ambulance. On inquiry, the President replied that the motions of the carriage did not give him any discomfort. At the street railroad crossings at Seventh and Fourteenth streets the vehicle was driven with exceeding caution, and with scarcely an uncomfortable motion. He was then taken in the same manner as before to his room, and placed with extreme caution on the low family bed. The room is known as the southwest or family room of the house. On his arrival thither a careful examination was made of his condition. The pulse continued feeble, frequent, and extremely compressible; the respiration was slow and sighing; extremities and surface cold, with occasional vomiting and profuse perspiration over the entire body; voice husky, with constant complaint of severe pains in the inferior extremities. He was placed upon his right side, so as to make the wound dependent, to facilitate drainage, and keep the viscera in contact with the injured parietes, with a view of preventing further hemorrhage, and looking to the possible adhesion of the injured parts to the peritoneum. After consultation it was deemed improper to remove the clothing, as such a proceeding would thus increase the dangers. Water was given in small quantities, often repeated. This was necessitated by the extreme thirst from which the patient suffered.

A hypodermic injection of one-eighth of a grain of morphine and one-

eightieth grain of atropia was administered to control the pain in the extremities, and as a more permanent stimulant to assist reaction. The place selected for injection was the dorsal aspect of the forearm. This was about 10 A. M., July 2d.

There was but little change in the condition of the patient, either in temperature, respiration, or pulse, until about 11 o'clock, when it was determined to repeat the morphine in the dose of one-sixth of a grain, the atropia being omitted. This soon had the effect of modifying the pain and discomfort, and the respiration became more frequent and easy. The pulse responded but little to the stimulants. Nausea and vomiting continued at intervals of thirty minutes during the entire day and until 7 P. M., when it became less frequent, with less retching—in fact, being simply a regurgitation of the fluids of the stomach. This condition continued at longer intervals until 6 o'clock the following morning.

At 5:30 P. M., in accordance with a previous understanding with the physicians, the clothing was removed by being cut from the body in such a manner as to prevent any motion or agitation, and to permit the more successful application of dry heat by warm flannels to the entire body, which had been imperfectly accomplished before. Upon examination, a well-defined field of dullness over the region of the wound, thought to be due to hemorrhage in the substance of the liver, along the supposed track of the ball, extended seven and one-half inches antero-posteriorly and five and one-half inches laterally.

The urine was retained until 6 o'clock P. M., when a flexible, velvet-eyed catheter was introduced, and about six ounces of normal urine drawn. During the remainder of his illness the urine was voided without restraint, and frequent careful examinations were made, proving the absence of albumen or other significant abnormal ingredients. A spontaneous evacuation of the bowels took place on July 3d, which was natural in character and free from blood or other foreign matter. After this, and during the entire period of his illness, the President was not subject to diarrhea, and his movements were either spontaneous or regulated by enemata. The only exception to this was that during the last few days of his illness occasional small involuntary discharges took place, which seemed to depend upon the existence of large hemorrhoids, which, from their size and locality, produced dilatation and partial paralysis of the sphincter muscle, the evacuation always occurring in an effort to expel flatus.

At 10 P. M. the pulse was 158, temperature 96.5, respiration 35, which was the most critical period attending the collapse. At 11:20 P. M. the evidences of reaction began to manifest themselves.

When the pulse had diminished to 120, the temperature had risen to 98

F, and the respiration was 18. The carbolized absorbent cotton which had previously sealed the wound having become displaced, was reapplied.

Until 2 P. M., of July 3d, the variations of pulse were comparatively slight, ranging from 104 to 120, the respiration being normal.

The patient slept at short intervals, generally arousing with an effort at regurgitation of the contents of the stomach, but otherwise expressed a feeling of comfort and gave evidences of rest. During the night he seemed to be refreshed, and was comparatively free from pain. There was no time after my first visit, up to this period, that the patient was not perfectly rational, and often made brief, pertinent inquiries as to the character of the wound and his condition.

At the evening consultation, July 2d (7 P. M.), the opinion was expressed by some of the medical gentlemen invited to the case, that internal hemorrhage had taken place, and that he would not survive the night, and expressed these views to the council. The symptoms of profound collapse were so grave that Surgeon-General Wales was induced to express the opinion that the President was dying.

The consultations heretofore referred to were, as a matter of course, held in the adjoining room. Only three or four physicians of the number present were invited to visit the bedside on each occasion to make personal examinations, to verify the reported progress, and enable them to intelligently advise the council.

The gentlemen invited by me to visit the bedside were Surgeon-General Wales, Surgeon J. J. Woodward, and Dr. Reyburn. On that occasion the opinion was expressed that the field of dullness heretofore referred to, the boundaries of which were well defined, was thought to be due to hemorrhage in the substance of the liver, from the passage of the ball into or through it. The opinion obtained, and was so expressed to the council, that internal hemorrhage was then taking place, and that the extreme prostration and feebleness of the respiration were due to that cause, and that the President would not survive the night.

There was some oozing of dark venous blood during the entire night, sufficient to saturate the carbolized cotton and stain the bed. On the following morning the hemorrhage had entirely ceased, and the dressings became adherent to the skin.

All the physicians visited the White House at 8 A. M., July 3d, for the morning consultation, agreeably to a previous understanding that such should be the case if the President survived the night.

At this consultation, Surgeon-General Barnes and Surgeon Woodward, Dr. Reyburn and Dr. N. S. Lincoln, visited the bedside of the patient with me, with a view of making the necessary examinations, dressing the wound, and of reporting results to the other members of the council. The patient

was found with a pulse of 115; the temperature was nearly normal, as was the respiration. He was cheerful, gave evidence of being rested, and made definite inquiries regarding his condition and prospects. The use of morphine hypodermically, in doses of sufficient quantities to control the pain in the extremities, was advised, and it was agreed that the patient should continue to occupy the position on his right side as before directed, so far as was possible; and that the wound should be exposed only when the dressings became disarranged; and that their character should not be changed.

Immediately after the consultation, the subject of medical attendance was considered by the President. The only persons present were, besides the President, Mrs. Garfield and myself. He then formally placed himself under my professional care, and requested me to select my counsel, the result of which is well known. He also desired me to individually thank the large number of physicians who had composed the council up to that time, which I accordingly did.

The primary reaction reached its highest point of temperature, pulse, and respiration, at 2 P. M. on Sunday, July 3d. Slight tympanites was detected, but no pain on pressure, nor any marked rigidity of the abdominal walls. These were the only symptoms which pointed to the existence of peritonitis throughout the whole course of the case, and the spontaneous movement of the bowels, already noted, was an additional evidence that the peritoneum was not involved.

At 10:45 P. M. the pulse had gradually increased in frequency until it reached 120. The temperature remained 100°, and respiration at 20. At this time Dr. D. Hayes Agnew, of Philadelphia, and Dr. Frank H. Hamilton, of New York, were summoned to visit the patient in consultation. Dr. Agnew arrived about 4 o'clock the following morning, July 4th, and Hamilton at 5 A. M. They were presented to the President formally at the consultation, 8:15 A. M., July 4th, at which time the pulse was 104, temperature 99.4°, and respiration 19. He had passed a comparatively comfortable night, awakening every twenty to thirty minutes, taking water or liquid nourishment in small quantities each time, and dropping quickly to rest. The nausea had quite subsided, and the pain and soreness of the lower extremities was measurably controlled by the administration of morphia, which was continued in quarter-grain doses each evening, administered hypodermically.

A careful review of the case from the time I first saw the President was given to these gentlemen, with the request that they, with the data before them, examine the case thoroughly, as though it was their own, and freely express their views of the character and gravity of the injury and the course of treatment of the case up to that time. I also gave them a detailed account of the explorations made in the wound, and the unsettled convictions as then held as to the course of the missile and the organs involved in the

injury. They individually examined the wound with great care. These examinations consisted in the introduction, in different directions, of probes, flexible bougies, in order, if possible, to determine the course of the ball. With the evidences developed by this personal examination, together with the complete history of the shooting of the President, and the progress of the symptoms for the first forty-seven hours, they proceeded to discuss the possible course of the ball and the organs involved, viz., whether it passed directly forward into or through the liver, or was deflected backward at a right angle so as to involve the spinal column, or downward behind the peritoneum toward the pelvic cavity. Carefully weighing all the evidences, the more prominent symptoms upon which the diagnosis was based are presented in the following order ; The relative position of the assassin to the President at the time of the shooting, the direction of the ball through the tissues, so far as safe exploration could determine, gradual subsidence or modification of pain and hyperesthesia of the feet and scrotum ; the repeated unsuccessful efforts to pass a probe or flexible instrument more than one-half inch in any direction beyond the fractured rib, except in a direction downward, a little forward and anterior to the twelfth rib, a distance of about two inches. The fact was also considered that explorations had twice been made with the finger—one by myself soon after I reached the injured President, and subsequently by Surgeon-General Wales, of the navy, on the occasion of the consultation on the evening of July 2d ; and in each instance it was found impossible to successfully explore by that means beyond the inner border of the fractured rib so as to determine, with accuracy, the course of the ball, or even the condition of the tissues indicated by the end of the finger. Nor did they underestimate the significance of the profound shock, nor the unusual period of collapse which followed and seemed to point to extensive lesion of important viscera. However, that the kidneys, intestines, and peritoneum were not immediately involved, was made patent by the unrestrained passage of normal urine at proper intervals, the spontaneous movement from the bowels of natural feces, the frequent discharge of flatus, and the absence of other symptoms of peritonitis. With all these facts before them it was impossible to determine positively the course taken by the ball. The indications pointed to a downward course of the ball into the pelvic cavity. Upon careful consideration of the foregoing facts and of the opinions expressed by the distinguished counsel, we were inclined to recede from the opinion at first adopted regarding the supposed passage of the ball through the liver. The propriety of making extensive incisions and dissections so as to explore the fractured ribs and remove as much as might be necessary to reveal the true course of the ball, was duly considered. But the opinion was maintained that the favorable progress of the President thus far did not warrant any interference, and, further, such an operation would

seriously complicate the case and diminish the prospects of recovery. The facts revealed by the autopsy confirm the wisdom of the course pursued. With this view all the surgeons concurred.

The subsequent history of the case, which proved that the liver, kidneys, the intestines and the large vessels had escaped serious injury, as well as the gradual subsidence of the nervous disturbance of the lower extremities, the almost entire absence of pain in the back or that portion of the body in which the track existed, together with a pus-sac which dissected its course down behind the peritoneum into the right iliac fossa, were but corroborative, and naturally misled our judgment into an erroneous diagnosis.

On the evening of July 4th, the pain, hyperesthesia, and vomiting had nearly disappeared, soreness of the feet supervening and continuing for some days.

The case progressed, with slight fluctuations, up to July 23d, when a rigor occurred at 7 P. M., followed by a pulse of 124, respiration 26, and temperature 104° F. Two days previous to this a pus-sac was observed in the common integument, extending down below the twelfth rib toward the erector spinæ muscle, and underneath the latissimus dorsi, and was carefully evacuated by gentle pressure into the original opening on the occasion of each dressing. We did not feel satisfied that this superficial and limited collection of pus, which was so readily evacuated, was the principal cause of the aggravation of the symptoms present. However, a free incision was made into the pus-sac, which afforded a more direct and independent channel to the fractured rib, from which a small fragment of the bone was removed.

Pressure made backward and upward upon the abdominal wall, between the umbilicus and anterior spine, gave exit to a flow of peculiarly white and firm pus. I remarked at the time to the council that the appearance of this pus gave assurance that it had never been exposed to the air, and must have come from a deep-seated source.

After this operation the improvement was not as prompt as we had reason to expect, and on the 26th of July the opening between the fractured ends of the eleventh rib was enlarged, and a small detached portion was removed. This facilitated the discharge of pus, and, as a result, a more uniform condition of the symptoms were maintained until about August 6th, when slight febrile exacerbations were observed, which continued to be manifest until the operation was made to afford a more free passage of pus from the supposed track of the ball. The necessity of the operation was more plainly developed by passing a flexible catheter through the opening previously made, which readily coursed toward the crest of the ilium, a distance of about seven inches. This cavity was evacuated twice daily, by passing through the catheter, previously inserted in the track, an aqueous solution of permanganate of potash from a small hand-fountain, slightly elevated, the

water and pus returning and escaping at the opening externally. The indications for making a point of exit in the dependent portion of this pus-sac were urgent, and on August 8th the operation was performed by extending the incision previously made, downward and forward through the skin, subcutaneous fascia, external and internal oblique muscles, to a sinus or pus-channel. The exposed muscle contained a considerable number of minute spiculæ of bone. Upon carrying a long, curved director through the opening between the fractured rib downward to the point of incision, there was a deeper channel which had not been exposed by the operation thus far, and the incision was carried through the transversalis muscle and transversalis fascia, opening into the deeper track and exposing the end of the director. A catheter was then passed into the portion of the track below the incision, a distance of three and one-half inches, and in a direction near the anterior superior spinous process of the ilium. The President was etherized during this operation.

A comparatively uniform condition of temperature, pulse, and respiration continued until August 14th, when nausea, vomiting, and general prostration occurred, with an increase of pulse to 108, temperature 100.8° F., and respiration 19—the pulse continuing to increase, although the temperature remained nearly normal up to August 17th, when food was again retained by the stomach. When the previous attack of vomiting took place, August 14th, the stomach was placed at physiological rest, and resort was had to rectal alimentation until August 17th, when the function of the stomach was gradually re-established and the enemata discontinued.

On August 18th a slight tumefaction of the right parotid gland was noticeable, unaccompanied by pain or tenderness on pressure, until the suppurative period was established, when mental disturbance, vomiting, restlessness, and jactitation supervened; nor was there any increase of temperature, local or systemic, to indicate the probability of its metastatic origin. The parotitis presented many of the characteristics of an ordinary carbuncle, and was unaccompanied by any other abscesses in the adjoining tissues. During the progress of the parotitis facial paralysis occurred; and continued, with slight improvement, until the time of his death. When the climax of suppuration was reached, a free discharge of laudable pus followed, with a rapid abatement of the more urgent symptoms, and after the separation of the slough (which was limited in extent) reparation was rapid and complete throughout the entire suppurating surface, as well as in the several incisions which had been previously made to liberate the pus. These lesions had entirely healed at the time of death, except an opening behind and below the right ear, referred to in the autopsy.

It was a marked feature during this whole period of parotid suppuration, that there was no associate systemic disturbance. The question of malarial

complication was discussed at this time, but it must be remembered that quinine had been given in tonic doses much of the time; and occasionally, when periodicity was noticeable, sedative doses were administered for a period of twenty-four hours at a time.

On August 19th a small slough was discharged from the lower pus-track, when the flexible catheter was readily passed downward a distance of twelve inches toward the right iliac fossa. This channel was kept free from accumulations by passing into it a carbolic or permanganate water from the hand-fountain heretofore described, at the same time carefully withdrawing the catheter, so as to avoid undue distension of the track.

During the latter part of August a number of pustules of suppurating acne appeared in the axillæ, and later, four or five on the surface of the body. They were superficial, numbering five or six in each axilla, and about the size of large peas; they were opened as soon as suppuration took place, healed without recurrence, and are believed to have been due to the septic condition of the system. The small carbuncle mentioned in the report of the autopsy was doubtless referable to the same cause. The above were the only suppurating surfaces, excepting the incisions made into the wound, and four small superficial bedsores formed on the sacrum, which were observed during the President's illness.

The subject of the removal of the President to a more salubrious locality had been discussed for several days, and was urgently presented at the consultation on August 25th. The majority of the council, with myself, considered that his removal at this time would be attended with very great hazard. The hope, however, was expressed that the President might be sustained until suppuration was established in the parotid, and the constitutional disturbances incident thereto had subsided, when it would be possible to remove him. Stimulants were given in doses of $\mathfrak{z}\mathfrak{v}$. with $\mathfrak{z}\mathfrak{i}\mathfrak{j}$. of beef-tea, occasionally introducing $\mathfrak{z}\mathfrak{j}$. of beef peptones, alternated with the yolk of an egg. These measures undoubtedly contributed largely to his sustentation during this period of continued gastric disturbance.

Our efforts were rewarded on August 26th by a free discharge of pus from the external auditory canal; also in the mouth. It was believed that the pus which discharged in the mouth dissected its way along the course of Steno's duct. There being rigidity of the masseter muscle, the jaw was fixed so as to preclude the possibility of opening the mouth sufficiently for a satisfactory examination. A tenacious mucus was secreted from that side in large quantities, and occasioned great annoyance. The patient during this period was occasionally wandering in his mind, especially after rousing from sleep. When his attention was fixed by an attendant, his mental condition seemed to be comparatively perfect.

An interesting fact connected with the inflammation of the mucous mem-

brane of the mouth was that it extended by continuity to the pharynx, larynx, trachea, and bronchi. The physical signs developed the fact that acute bronchial catarrh was the sequel. Hypostatic congestion of the lungs was observed for some weeks before, more extensive on the right than the left, because of the decubitus. On the right side it extended to the sixth rib posteriorly, while on the left side it was comparatively slight. An improved condition was maintained with a free-suppurating condition of the parotid and marked reduction of the tumefaction of the gland.

Finally it was decided by the majority of the surgeons that the President should be removed to the sea-shore. The details as to the precautions taken to secure a safe transit were minute in every particular, and every provision was made to meet any emergency that might arise in the course of the journey—even preparations for his removal from the train to suitable places on the road which had been previously selected, in case evidences of exhaustion should become manifest.

His transfer from the Executive Mansion to the cars was made with the least possible disturbance, without accident, and with perfect satisfaction and comfort to the patient. During the journey his pulse and temperature were taken from time to time, and frequent examinations made to determine the effect of the motion at different rates of speed. The minimum of unpleasant motion seemed to be secured at a rate of about sixty miles an hour. During the last hour of his journey he showed symptoms of fatigue, which would have prevented a longer journey, had such been required to reach his destination. His pulse increased, the countenance became slightly anxious, and the temperature measurably exalted at the period to which I allude.

He was transferred from the cars to the Elberon cottage without accident, the pulse at 10 P. M. reaching 124, temperature 101.6°. The morning of September 7th his pulse had fallen to 106, temperature 98.4°, respiration 19. The President expressed great satisfaction that he had arrived at the sea-shore, and, notwithstanding the heat of the two succeeding days, it made but little impression upon the distinguished patient, the pulse, temperature, and respiration continuing the same until September 15th, when his pulse slightly increased in the evening, so that it occasionally reached 120 during the night.

After his arrival at Elberon there was an extension of the bronchial catarrh into the ramifications of the bronchi of the right lung, and limited broncho-pneumonia followed.

I should mention here a fact well known, that the President was so much pleased with his improvement that he expressed a desire that the number of his professional attendants should be reduced. Accordingly Drs. Barnes, Woodward, and Reyburn retired from the case, leaving Elberon the morning of September 8th.

September 17th, at 11 P. M., a severe rigor occurred of half an hour's duration, followed by a sharp rise in temperature. At 12 M. the pulse was 120, temperature 102° F., and respiration 24. The mental disturbances were more noticeable during the febrile rise, but the stomach was able to retain the nourishment and stimulants, which were given at regular intervals in the form of milk-punch. This chill was accompanied by severe pain over the anterior mediastinum, and the President said to me that it was similar to what he understood as angina pectoris. It is evident that this pain, which occurred on several occasions at intervals of six to twelve hours prior to his death, was occasioned by first a rupture of the aneurismal sac, and the progressive dissection, at regular intervals, of the blood into the surrounding tissue, until finally it burst into the peritoneum.

A febrile rise was very marked by twelve noon of the 17th, attended with great anxiety of countenance, the temperature falling to 98° F., the lowest point of normal range, the pulse being, however, steadily at 102, and rather feeble. While there was, in my judgment, an absence of typical metastatic abscesses to produce this symptom, there was a profound expression of gravity in his condition that was not commensurate with the disturbance, and which prevented my absence, even for a few moments at a time. I remarked to Dr. Agnew: "I am in constant fear of some danger impending. We may have a terrible outburst, possibly in the shape of a cardiac thrombus." I said to members of the family: "There is a gravity in this case that portends serious trouble."

At 6 P. M. of the 18th there was another chill, accompanied with pain as before. The febrile rise continued until midnight, the pulse varying from 112 to 130.

At 8 A. M., September 18th, the pulse was 106 and feeble; temperature 100.8°, and all the conditions unfavorable. In half an hour afterward there was still another chill, followed by febrile rise and sweating, and also with pain as before. During the periods of chill and fever he was more or less unconscious. He passed all day in comparative comfort, and at 8:30 in the evening his pulse was 108, respiration 20, and temperature evidently a little lower than normal.

At 10 P. M. I was summoned hastily to the bedside, and found the President in an unconscious and dying condition, pulseless at the wrists, with extreme pallor, the eyes opened and turned upward, and respiration eight per minute, and gasping. Placing my finger upon the carotid, I could not recognize pulsation; applying my ear over the heart, I detected an indistinct flutter, which continued until 10:35, when he expired. The brave and heroic sufferer, the nation's patient, for whom all had labored so cheerfully and unceasingly, had passed away.

Soon after the President expired, it became necessary to make arrange-

ments for an autopsy, so as to present to the profession, in a definite manner, the track of the ball and the parts involved; also to ascertain the immediate cause of death. I deemed it proper to invite Surgeon-General Barnes, and Surgeon J. J. Woodward, U. S. A., and Dr. Robert Reyburn, of Washington, D. C., who were formerly associated in the case, to take part in the autopsy, and also invited, at the instance of Dr. Woodward, Dr. Lamb, of the Army Medical Museum, for the same purpose. The former gentlemen arrived at Elberon, N. J., about 3:45 P. M., when the post-mortem examination was commenced. Dr. A. H. Smith, of New Jersey and New York, and temporarily at Elberon, was also invited.

The most important points revealed by the autopsy, and which are to be considered by the profession, are:

First.—Would the condition of the President, immediately after his injury, have justified a more thorough exploration of the wound, or would such a procedure have been safe at any time before primary reaction was established?

Second.—Was his transfer to the Executive Mansion timely and properly made?

Third.—Were the best and most judicious means instituted to secure prompt reaction?

Fourth.—After reaction was comparatively complete on the 3d of July, and when there had occurred spontaneous evacuations of normal urine and alvine evacuations, with an absence of any evidence of internal hemorrhage or peritonitis, would further exploration had been necessary, especially when it is considered that the probable reopening of the lacerated vessels would induce hemorrhage?

Fifth.—Were the surgeons then in attendance justified in deferring any further exploration until the arrival of the distinguished counsel on the morning of July 4th?

Sixth.—At the consultation, July 4th, and after it was proved to be impossible to follow the track of the ball any considerable distance beyond the fractured rib, would an operation have been justifiable, necessitating an incision through the soft parts and a removal of a portion of the rib, so as to develop the track?

Seventh.—In the light of modern military surgery, which teaches the readiness with which leaden balls become encysted, would an operation at any time for removal of the missile have been justified unless there was some evidence of the missile being a source of irritation?

Eighth.—Considering carefully the condition of the President during the entire period of his illness, and the facts revealed by the autopsy, would not any operations for the purposes before mentioned have placed the President's life in great jeopardy, and, at best, have hastened the time of his death, without affording any signal relief?

Ninth.—Was the treatment of the case as presented proper, and did it or not prolong his life to the utmost limit?

Tenth.—Was the mistaken diagnosis a natural result of the conditions present, and to have developed a correct diagnosis would not operative procedures have ensued?

Eleventh.—If we had known the exact course and locality of the ball, and the organs injured in its passage, should the treatment have been modified in any particular?

The artistic drawings which accompany this history will, I trust, facilitate its study, and their accuracy is not only attested by myself, but by Prof. Faneuil D. Weisse, M. D., and Dr. Geo. F. Shrady, of New York, both of whom visited Washington, on my invitation, to study the case, and make thorough and personal examination of the specimens preserved, with a view of verifying the facts in its history.

These drawings were made by Mr. Max Cohn, of New York, who came to Washington, D. C., for that purpose, at my request.

They very satisfactorily illustrate the point of impact and course of the ball, and the pathological conditions which followed, and upon which the diagnosis and treatment were based.

I desire to say, in a brief review of the leading facts as to the general conduct of the case, that it has been apparent to the medical reader that my prognosis was favorable, and notwithstanding the mutations I augured a successful termination. It is but justice to myself to state that my prognosis was based on a lesion of minor importance. Had our diagnosis been correct, modern surgery should have conducted the case to a successful termination. I believe the medical profession, whom I address, will bear me out that the prognosis was correct if the diagnosis had been also correct. I was not always able, during the progress of the case, to account for many of the more profound symptoms, and yet could not succeed in learning of any more extensive or complicated lesions than were first suspected. I desire to make the inquiry whether more extensive explorations could have been made, or whether the condition presented—a knowledge of the relative position of the patient to the assassin, the character of the missile, and the condition of the lesion and symptoms which follow—would have directed the investigation toward the actual track and lodgement of the ball, the track of the ball presenting a course of entrance downward and forward to the point of impingement upon the eleventh rib. and being then deflected to the left at almost a right angle, passing behind the kidney, perforating the intervertebral cartilage and first lumbar vertebra anterior and to the left of the kidney, and finding its lodgement below the left extremity of the pancreas, wounding in its track the splenic artery. I would ask if any known instrument or means of exploration has ever been presented to the profession capable of tracing before

the death of said patient the course of this bullet? Also whether the conditions could have been improved or mitigated, or his life preserved longer by any other line of treatment; whether, in view of the facts, modern conservative surgery could offer anything more for the comfort or the recovery of the illustrious patient?

It is proper to state, in conclusion, that most approved antiseptic dressings were used during the entire progress of the case.

The following is the report of the autopsy, to which reference has been made:

Record of the Post-mortem Examination of the Body of President J. A. Garfield, made September 20, 1881; commencing at 4:30 P. M., eighteen hours after death, at Franklyn Cottage, Elberon, New Jersey.

Present and assisting: Dr. D. W. Bliss, Surgeon-General J. K. Barnes, U. S. Army, Surgeon J. J. Woodard, U. S. Army, Dr. Robert Reyburn, Dr. Frank H. Hamilton, Dr. D. Hayes Agnew, Dr. Andrew H. Smith, of Elberon (and New York), and Acting Assistant Surgeon D. S. Lamb, of the Army Medical Museum, Washington, D. C.

Before commencing the examination, a consultation was held by these physicians, in a room adjoining that in which the body lay, and it was unanimously agreed that the dissection should be made by Dr. Lamb, and that Surgeon Woodward should record the observations made. It was further unanimously agreed that the cranium should not be opened. Surgeon Woodward then proposed that the examination should be conducted as follows:

That the body should be viewed externally, and any morbid appearances recorded; that a catheter should then be passed into the wound, as was done during life, to wash it out, for the purpose of assisting to find the position of the bullet; that a long incision should next be made from the superior extremity of the sternum to the pubes, and this crossed by a transverse one just below the umbilicus; that the abdominal flaps thus made should then be turned back and the abdominal viscera examined; that after the addominal cavity was opened the position of the bullet should be ascertained, if possible, before making any further incision; and that, finally, the thorarcic viscera should be examined.

This order of procedure was unanimously agreed to.

The examination was then proceeded with, and the following *external appearances* were observed:

The body was considerably emaciated, but the face was much less wasted than the limbs. A preservative fluid had been injected by the embalmer, a few hours before, into the left femoral artery. The pipes used for the purpose were still in position. The anterior surface of the body presented no

abnormal appearances, and there was no ecchymosis or other discoloration of any part of the front of the abdomen.

Just below the right ear, and a little behind it, there was an oval ulcerated opening, about half an inch in long diameter, from which some sanious pus was escaping, but no tumefaction could be observed in the parotid region.

A considerable number of purpura-like spots were scattered thickly over the left scapula, and thence forward as far as the axilla. They ranged from one-eighth to one-fourth of an inch in diameter, were slightly elevated and furfuraceous on the surface, and many of them were confluent in groups of two to four, or more. A similar, but less abundant eruption was observed sparsely scattered over the corresponding region on the right side.

An oval excavated ulcer about an inch long, the result of a small carbuncle, was seated over the spinous process of the tenth dorsal vertebra. Over the sacrum there were four small bed-sores, the largest about half an inch in diameter. A few acne pustules, and a number of irregular spots of post-mortem hypostatic congestion were scattered over the shoulders, back and buttocks. The inferior part of the scrotum was much discolored by hypostatic congestion. A group of hemorrhoidal tumors, rather larger than a walnut, protruded from the anus.

The depressed cicatrix of the wound made by the pistol-bullet was recognized over the tenth intercostal space, three and one-half inches to the right of the vertebral spines. A deep linear incision (made in part by the operation of July 24th, and extended by that of August 8th) occupied a position closely corresponding to the upper border of the right twelfth rib. It commenced posteriorly about two inches from the vertebral spines, and extended forward a little more than three inches. At the anterior extremity of this incision there was a deep, nearly square abraded surface about an inch across.

A well-oiled flexible catheter, fourteen inches long, was then passed into this wound, as had been done to wash it out during life. More resistance was at first encountered than had usually been the case, but after several trials the catheter entered, without any violence, to its full length. It was then left in position, and the body disposed supinely for the examination of the viscera.

The *cranium* was not opened.

A long incision was made from the superior extremity of the sternum to the pubes, followed by a transverse incision crossing the abdomen just below the umbilicus. The four flaps thus formed were turned back and the abdominal viscera exposed. The subcutaneous adipose tissue divided by the incision was little more than one-eighth of an inch thick over the thorax, but was thicker over the abdomen, being about one-fourth of an inch thick along the

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linea alba, and as much as one-half inch thick toward the outer extremity of the transverse incision.

On inspection of the abdominal viscera in situ, the transverse colon was observed to lie a little above the line of the umbilicus. It was firmly adherent to the anterior edge of the liver. The greater omentum covered the intestines pretty thoroughly from the transverse colon almost to the pubes. It was still quite fat, and was very much blackened by venous congestion. On both sides its lateral margins were adherent to the abdominal parietes opposite the eleventh and twelfth ribs. On the left side the adhesions were numerous, firm, well organized, and probably old.* On the right side there were a few similar adhesions, and a number of more delicate and probably recent ones.

A mass of black, coagulated blood covered and concealed the spleen and the left margin of the greater omentum. On raising the omentum it was found that this blood-mass extended through the left lumbar and the iliac regions and dipped down into the pelvis, in which there was some clotted blood and rather more than a pint of bloody fluid.† The blood-coagula having been turned out and collected, measured very nearly a pint. It was now evident that secondary hemorrhage had been the immediate cause of death, but the point from which the blood had escaped was not at once apparent.

The omentum was not adherent to the intestines, which were moderately distended with gas. No intestinal adhesions were found other than those between the transverse colon and the liver, already mentioned.

The abdominal cavity being now washed out as thoroughly as possible, a fruitless attempt was made to obtain some indication of the position of the bullet before making any further incision. By pushing the intestines aside the extremity of the catheter, which had passed into the wound, could be felt between the peritoneum and the right iliac fascia; but it had evidently doubled upon itself, and, although a prolonged search was made, nothing could be seen or felt to indicate the presence of the bullet, either in that region or elsewhere.

The abdominal viscera were then carefully removed from the body, placed in suitable vessels, and examined *seriatim*, with the following results:

The adhesions between the liver and the transverse colon proved to bound an abscess-cavity between the under-surface of the liver, the transverse colon, and the transverse mesocolon, which involved the gall-bladder, and extended to about the same distance on each side of it, measuring six inches trans-

* These adhesions, and the firm ones on the right side, as well as those of the spleen, possibly date back to an attack of chronic dysentery, from which the patient is said to have suffered during the civil war.

† A large part of this fluid had probably transuded from the injecting material of the embolizer.

versely and four inches from before backward. This cavity was lined by a thick pyogenic membrane, which completely replaced the capsule of that part of the under surface of the liver occupied by the abscess. It contained about two ounces of greenish yellow fluid—a mixture of pus and biliary matter. This abscess did not involve any portion of the substance of the liver except the surface with which it was in contact, and no communication could be detected between it and any part of the wound.

Some recent peritoneal adhesions existed between the upper surface of the right lobe of the liver and the diaphragm. The *liver* was larger than normal, weighing eighty-four ounces; its substance was firm, but of a pale yellowish color on its surface and throughout the interior of the organ, from fatty degeneration. No evidence that it had been penetrated by the bullet could be found, nor were there any abscesses or infarctions in any part of its tissue.

The *spleen* was connected to the diaphragm by firm, probably old, peritoneal adhesions. There were several rather deep congenital fissures in its margins, giving it a lobulated appearance. It was abnormally large, weighing eighteen ounces; of a very dark lake-red color both on the surface and on section. Its parenchyma was soft and flabby, but contained no abscesses or infarctions.

There were some recent peritoneal adhesions between the posterior wall of the *stomach* and the posterior abdominal parietes. With this exception no abnormalities were discovered in the stomach or *intestines*, nor were any other evidences of general or local peritonitis found besides those already specified.

The *right kidney* weighed six ounces, the *left kidney* seven. Just beneath the capsule of the left kidney, at about the middle of its convex border, there was a little abscess one-third of an inch in diameter, and there were three small serous cysts on the convex border of the right kidney, just beneath the capsule; in other respects the tissue of both kidneys was normal in appearance and texture.

The *urinary bladder* was empty.

Behind the right kidney, after the removal of that organ from the body, the dilated *track of the bullet* was dissected into. It was found that from the point at which it had fractured the right eleventh rib (three and one-half inches to the right of the vertebral spines) the missile had gone to the left, obliquely forward, passing through the body of the first lumbar vertebra and lodging in the adipose connective tissue immediately below the lower border of the pancreas, about two and one-half inches to the left of the spinal column, and behind the peritoneum. It had become completely encysted.

The track of the bullet between the point at which it had fractured the eleventh rib and that at which it entered the first lumbar vertebra was considerably dilated, and the pus had burrowed downward through the adipose tissue behind the right kidney, and thence had found its way between the

peritoneum and the right iliac fascia, making a descending channel which extended almost to the groin. The adipose tissue behind the kidney in the vicinity of this descending channel was much thickened and condensed by inflammation. In the channel, which was found almost free from pus, lay the flexible catheter introduced into the wound at the commencement of the autopsy; its extremity was found doubled upon itself, immediately behind the peritoneum, reposing upon the iliac fascia, where the channel was dilated into a pouch of considerable size. This long descending channel, now clearly seen to have been caused by the burrowing of pus from the wound, was supposed during life to have been the track of the bullet.

The last dorsal, together with the first and second lumbar vertebra and the twelfth rib, were then removed from the body for more thorough examination.

When this examination was made, it was found that the bullet had penetrated the first lumbar vertebra in the upper part of the right side of its body. The aperture by which it entered involved the intervertebral cartilage next above, and was situated just below and anterior to the intervertebral foramen, from which its upper margin was about one-fourth of an inch distant. Passing obliquely to the left, and forward through the upper part of the first lumbar vertebra, the bullet emerged by an aperture, the center of which was about one-half inch to the left of the median line, and which also involved the intervertebral cartilage next above. The cancellated tissue of the body of the first lumbar vertebra was very much comminuted and the fragments somewhat displaced. Several deep fissures extended from the track of the bullet into the lower part of the body of the twelfth dorsal vertebra. Others extended through the first lumbar vertebra into the intervertebral cartilage between it and the second lumbar vertebra. Both this cartilage and that next above were partly destroyed by ulceration. A number of minute fragments from the fractured lumbar vertebra had been driven into the adjacent soft parts.

It was further found that the twelfth rib was also fractured at a point one and one-fourth inch to the right of the transverse process of the twelfth dorsal vertebra; this injury had not been recognized during life.

On sawing through the vertebra, a little to the left of the median line, it was found that the spinal canal was not involved by the track of the ball. The spinal cord, and other contents of this portion of the spinal canal, presented no abnormal appearances. The rest of the spinal cord was not examined.

Beyond the first lumbar vertebra, the bullet continued to go to the left, passing behind the pancreas to the point where it was found. Here it was enveloped in a firm cyst of connective tissue, which contained, besides the ball, a small quantity of inspissated, somewhat cheesy pus, which formed a

thin layer over a portion of the surface of the lead. There was also a black shred adherent to a part of the cyst-wall, which proved, on microscopical examination, to be the remains of a blood-clot. For about an inch from this cyst the track of the ball behind the pancreas was completely obliterated by the healing process. Thence, as far as the body of the first lumbar vertebra, the track was filled with coagulated blood, which extended on the left into an irregular space rent in the adjoining adipose tissue behind the peritoneum and above the pancreas. The blood had worked its way to the left, bursting finally through the peritoneum behind the spleen into the abdominal cavity. The rending of the tissues by the extravasation of this blood was undoubtedly the cause of the paroxysms of pain which occurred a short time before death.

This mass of coagulated blood was of irregular form, and nearly as large as a man's fist. It could be distinctly seen from in front through the peritoneum, after its site behind the greater curvature of the stomach had been exposed by the dissection of the greater omentum from the stomach, and especially after some delicate adhesions between the stomach and the part of the peritoneum covering the blood-mass had been broken down by the finger. From the relations of the mass as thus seen, it was believed that the hemorrhage had proceeded from one of the mesenteric arteries, but as it was clear that a minute dissection would be required to determine the particular branch involved, it was agreed that the infiltrated tissues and the adjoining soft parts should be preserved for subsequent study.

On the examination and dissection made in accordance with this agreement, it was found that the fatal hemorrhage proceeded from the rent, nearly four-tenths of an inch long, in the main trunk of the splenic artery, two and one-half inches to the left of the celiac axis. This rent must have occurred at least several days before death, since the everted edges in the slit in the vessel were united by firm adhesions to the surrounding connective tissue, thus forming an almost continuous wall bounding the adjoining portion of the blood-clot. Moreover, the peripheral portion of the clot in this vicinity was disposed in pretty firm concentric layers. It was further found that the cyst below the lower margin of the pancreas, in which the bullet was found, was situated three and one-half inches to the left of the celiac axis.

Besides the mass of coagulated blood just described, another, about the size of a walnut, was found in the greater omentum, near the splenic extremity of the stomach. The communication, if any, between this and the larger hemorrhage mass could not be made out.

The examination of the *thoracic viscera* resulted as follows:

The *heart* weighed eleven ounces. All the cavities were entirely empty except the right ventricle, in which a few shreds of soft, reddish coagulated blood adhered to the internal surface. On the surface of the mitral valve

there were several spots of fatty degeneration ; with this exception the cardiac valves were normal. The muscular tissue of the heart was soft, and tore easily. A few spots of fatty degeneration existed in the lining membrane of the aorta just above the semilunar valves, and a slender clot of fibrin was found in the aorta, where it was divided, about two inches from these valves, for the removal of the heart.

On the right side slight pleuritic adhesions existed between the convex surface of the lower lobe of the lungs and the costal pleura, and firm adhesions between the anterior edge of the lower lobe, the pericardium, and the diaphragm. The *right lung* weighed thirty-two ounces. The posterior part of the fissure, between the upper and lower lobes, was congenitally incomplete. The lower lobe of the right lung was hypostatically congested, and considerable portions, especially toward its base, were the seat of broncho pneumonia. The bronchial tubes contained a considerable quantity of stringy muco-pus ; their mucous surface was reddened by catarrhal bronchitis. The lung-tissue was edematous,* but contained no abscesses or infarctions.

On the left side the lower lobe of the lung was bound behind to the costal pleura, above to the upper lobe, and below to the diaphragm, by pretty firm pleuritic adhesions. The *left lung* weighed twenty-seven ounces. The condition of the bronchial tubes and of the lung-tissue was very nearly the same as on the right side, the chief difference being that the area of the broncho pneumonia in the lower lobe was much less extensive in the left lung than in the right. In the lateral part of the lower lobe of the left lung, and about an inch from the pleural surface, there was a group of four minute areas of gray hepatization, each about one-eighth of an inch in diameter. There were no infarctions and no abscesses in any part of the lung-tissue.

The surgeons assisting at the autopsy were unanimously of the opinion that, on reviewing the history of the case in connection with the autopsy, it is quite evident that the different suppurating surfaces, and especially the fractured spongy tissue of the vertebra, furnish a sufficient explanation of the septic conditions which existed during life.

About an hour after the post-mortem examination was completed, the physicians named at the commencement of this report assembled for further consultation in an adjoining cottage ; a brief outline of the results of the post-mortem examination was drawn up, signed by all the physicians, and handed to Private Secretary J. Stanley Brown, who was requested to furnish copies to the newspaper press.

(Signed)

D. W. BLISS,
J. K. BARNES,
J. J. WOODWARD,
ROBERT REYBURN,
D. S. LAMB.

As the above report contains paragraphs detailing the observations made at

* A part, at least, of this condition was doubtless due to the extravasation of the injecting fluid used by the embalmer.

Washington on the pathological specimens preserved for that purpose, the names of Drs. F. H. Hamilton, D. Hayes Agnew, and A. H. Smith, are not appended to it. It has, however, been submitted to them, and they have given their assent to the other portions of the report.

A CASE OF STRANGULATED HERNIA.

BY D. W. SHARP, M. D., WEST MIDDLEBURG, OHIO.

The singularity in the termination of the case of inguinal hernia here described, induces me to report it.

I was called on the 27th day of January, 1880, to see Miss A. B., aged forty-nine years, who was suffering with strangulated hernia in the right inguinal region. The tumor was as large as a turkey egg, and had existed for some hours. I immediately made efforts at reduction, and failing, called Dr. Evans. Our united efforts also failed. Dr. W. T. Sharp was then called, and after consultation Dr. B. B. Leonard, of West Liberty, was sent for with instructions to come prepared to operate. Upon examination it was concluded that gangrene had already supervened, and that the continuity of the tube could not be maintained by an operation. These facts were made known to the patient and friends, and the chances of life with an artificial anus on the one hand, or death on the other, were presented and the former chosen by patient and friends. Dr. Leonard performed herniotomy, in the presence and by the assistance of Drs. W. T. Sharp, C. C. Stokes, and myself. The bowel was found mortified. The stricture was cut and the bowel brought down until the line of demarkation was plainly seen: here it was fixed and left to the process of nature and my care. I removed from time to time, not less than eight or ten inches of the intestinal tube, as separation took place. The patient was sustained by beef-tea, milk, soups, &c. On the first day of March she had three discharges from the bowels in the natural way, which were free and healthy in every respect. On the 2d, two more; on the 3d, one more; and so on, from day to day, with diminished evacuations from the wound. Concluding that all the alvine discharges might pass *per vias naturales*, I placed a compress over the inguinal opening, but found vomiting to ensue and therefore desisted. On the 23d day of April, Dr. Leonard ventured to *reviv* the wound with silver wire, closing it entirely. No untoward symptoms resulted, and the discharges were forced the natural way, except a very thin watery substance which occasionally forced its way through the wound.

In a few months Miss B—— was entirely restored, the wound closed, and she now enjoys excellent health.

*HISTORY OF A CASE OF ABSCESS OF THE BRAIN—
AUTOPSY.*

BY C. H. HUMPHREYS, M. D., BRANDT, O.

Reported to Miami County Medical Society, Sept. 13, 1881.

J. S., aged 32, farm laborer, married and father of four children; had no history of previous illness or injury, except injury to one of his testes, in 1879, which resulted in abscess. I did not treat him for this, but he believed himself to have fully recovered. During the past winter he suffered from occasional headache, but his general health continued good, and the headache was not considered of sufficient importance to require treatment.

On the afternoon of April 3d, 1881, while walking alone in a field, he experienced slight vertigo and a feeling akin to pain and formication of the whole right side; he immediately returned home, where, on attempting to communicate with his wife, he made the alarming discovery that he was aphasic. A messenger sent for me said the patient was "talking crazy."

Two hours after this occurrence I saw him; the aphasic symptoms had about passed away; he talked intelligently, but occasionally repeated the same word two and three times, which appeared to annoy him somewhat; his wife said when he entered the house she could not comprehend anything he said, beyond a few disconnected words without meaning. He explained to me that he knew perfectly well what he wanted to say, but could not use the words he wanted to. His pulse, temperature, pupils, heart-sounds, sensibility of surface, were all entirely normal; there was no evidence of paralysis, had perfect use of his right leg, and a strong grip with the right hand; the tongue protruded, with no deviation from the correct line. I observed that the patient would spit every moment or so. He said the salivation began with the other symptoms; the saliva was thin and watery, and there appeared to be about a quart in the vessel, which did not contain all the expectoration. He complained of pain in the head, which had been constant for a week; the pain was entirely on the left side, and confined to the frontal and temporal regions. The appetite was good and digestive organs in normal condition.

A saline purgative was ordered, and the bromide of potash in scruple doses with complete rest in bed. Various remedies were made use of but no relief came to the headache. The patient would frequently remark to me that but for the headache he would be well. Successive trials were made of chloral, bromide of potassium, gelseminum, morphia, ergot, iodide of potassium to pronounced iodism, quinia to cinchonism, but with little or no benefit except the temporary relief some of these remedies afforded. There were two or three recurring attacks of the aphasia of short duration like the first. About two weeks before death he began to lose his hearing in the left ear,

and in time deafness became complete on that side. Up to the day of death the patient continued to go about, and did some light work, so insignificant appeared his ailments that some of his neighbors uncharitably charged him with malingering. On June 8th the patient rode six miles to consult Dr. Roseberry, of Fairfield, who did not complete his diagnosis at that examination. The patient complained much of pain in the head that night and rested badly, but fell asleep in the morning, which sleep deepened into coma in the afternoon, in which state he unexpectedly died about three o'clock.

Autopsy as held at 9 o'clock next morning.

The examination was limited to the head. On removal of the calvarium nothing abnormal was observed beyond moderate congestion of the blood-vessels; there were no adhesions of the dura mater or other signs of previous inflammation. On removal of the brain the left hemisphere felt less firm than the right, and on section there presented an encysted abscess, about as large as a hen's egg, occupying the anterior part of the middle lobe, and lying about half an inch from the surface. Nearly the whole of the middle lobe and a considerable portion of the anterior were in a condition of yellow softening (creamy); the abscess had a thick cyst-wall, and the pus was thick and greenish. Examination of the condition of the middle cerebral artery was wholly over-looked. All the bones appeared healthy.

Remarks: The peculiar features of the case relate to the clinical history; how it was possible for such extensive disorganization of the brain to have occurred with so few symptoms of brain disease, without convulsions or paralysis, and also without history of injury, disease of the nose, ear discharge, or of constitutional taint. It would be interesting to know what the primary cause of this abscess was. The thickness of its cyst wall (some two or three lines), would denote that it probably was some months old. It would scarcely seem possible that it dated from the time of injury to the testicle (nearly two years), yet it is stated that "suppuration in any part of the body may give rise to secondary abscesses in the brain" (*Reynold's Syst. Med.*). "Encephalitis and softening, the result of plugging up a cerebral artery, or encephalitis around a hemorrhagic effusion, show no disposition to the formation of pus or abscess." (*Ibid.*)

The case presents another point of interest, namely, its great rarity. Idiopathic abscess, while admitted possible, is extremely rare and possesses no pathognomonic symptoms. Early in the treatment of this case, I one day, in conversation with my friend, Dr. Cline, expressed the opinion that if trephining the skull in obscure brain affections as an exploratory procedure were justifiable, we would probably find in the left anterior lobe of this patient's brain an abscess. The operation, if made, would have been without precedent, and therefore, if unsuccessful, unjustifiable. In this case, with explorations with an aspirator needle, which "would do but little harm, even if matter were

not discovered" (*Holmes' Syst. Surg.*, vol. I, page 669), there would have been a probability of the discovery and evacuation of the abscess, and, if the area of softening had not occurred, there would have been a reasonable chance for the man's life.

"There is no case on record wherein a cerebral abscess has undergone a spontaneous cure" (*Ibid*, page 668,) and the time may come when idiopathic, as now with traumatic, abscess of the brain will be relegated into the surgeon's hands.

DEATH FROM CHLOROFORM DURING LABOR.

BY J. C. REEVE, M. D. DAYTON, OHIO.

I made the request in the JOURNAL a few months ago, for information in regard to any death or deaths which have occurred during natural labor from the administration of chloroform *by a competent medical man*. Since then the second volume of the Library of the Surgeon General's Office has made its appearance, and under the head of Deaths from Chloroform, I find reference made to two during natural labor, as published in the London *Medical Times and Gazette* for 1858. My file of that journal began with 1859, but by the courtesy of Dr. Robert Fletcher, in charge of the Library during the absence of Dr. Billings, I am enabled to give the cases as follows:

CASE I.—BY ROBERT LEE, M. D., F. R. S.

Communication from Dr. John Campbell.

Patient (age not stated) had been anesthetized by chloroform in first labor: husband administered it in subsequent labors. In the last and fatal labor (number of labors not stated) it was given when the expulsive pains came on. "On giving it probably for the fourth time, *she threw herself violently back, gave a gasp or two; a slight gurgle was heard in her throat, and respiration and pulse instantly ceased.*"

No post-mortem; child not delivered; no special point in previous history.

CASE II.

To the Editor of the Medical Times and Gazette:—

SIR:—If coroner's inquests were held in Scotland as they are in England, there can be but little doubt that many secrets would be revealed which are now kept in the dark. In a letter which I received from Dr. Matthews Duncan, of Edinburgh, dated November 15, 1858, there is the following P. S.:—"Your case of chloroform death in midwifery is, to the best of my belief, not the only one in Scotland. I was called, but by some mistake the messenger reached me too late, to a case which died suddenly while taking it in small quantity."

I am &c.,

November 17, 1858.

ROBERT LEE.

I.—5.—4.

Of course, neither of these cases are incompatible with my position. In the first, chloroform was administered by the husband, or it was a case of self-administration. The second is too meagre in detail to be worthy of any consideration in a scientific view. Indeed, the two cases are unworthy of any notice in this connection but from this fact: there has been a "table of deaths from chloroform" repeated over and over again by authors, in which have always figured "two during natural labor!" Now the query arises if these cases are the fatal and ever recurring "Two?" I believe they are, and that after years of inquiry and search I have at least succeeded in finding them, and learning with how much justice, or injustice, they have been accepted as disasters of chloroform.

REVIEWS AND BOOK NOTICES.

Prices are always inserted when furnished by the publisher, or when obtainable from the bookseller.

A New Form of Nervous Disease; Essay on Erythroxyton Coca; by W. S. Searle, A. M., M. D. New York: Fords, Howard & Hulburt, 1881.

Dr. Searle thinks he has discovered a form of disease of the nervous system hitherto undescribed. The essay on Coca is designed to show the utility of this new remedy in the treatment of this new disease.

The Applied Anatomy of the Nervous System, etc. By Ambrose L. Ranney, A. M., M. D., adjunct Professor of Anatomy and late lecturer on the Diseases of the Genito-urinary organs, and on Minor Surgery, in the Medical Department of the University of the city of New York, etc. D. Appleton & Co., New York, 1881.

The above is a part only of the voluminous title of a new book; a book which is compiled from a great number of authorities, and which shows the literary industry of the writer, especially when taken in connection with the fact that this is the third book within a period of two or three years on whose title page the name of the author appears. The first part of the volume is devoted to the presentation of the Doctrines of Cerebral Localization, which is a re-statement of the conclusions of Ferrier, Charcot, and others who have worked in this field.

One-third of the book is devoted to the discussion of the anatomy of the cranial nerves. Then follow discussions upon the spinal cord and spinal

nerves. The book is profusely illustrated by drawings and diagrams. We find nothing in it which is not contained in special works—which are abundantly referred to—and the book will be valuable to students, who have not access to these monographs, which are multiplying every year, upon nervous diseases. The book is elegantly printed on tinted paper.

This volume adds one more to the numerous compilations for which American authors are distinguished, and illustrates a remark made some years ago by one of the most scholarly medical men of New York, that “the young men only write books now-a-days, which are not distinguished by original research so much as by ability in selecting from the works of others.”

D. N. K.

A System of Surgery, Theoretical and Practical, in Treatises, by Various Authors; edited by T. Holmes, M. A., Cantab, Surgeon and Lecturer on Surgery at St. George's Hospital, Memb. Corresp. De La Societe de Chirurgie De Paris. First American from second English edition, thoroughly revised and much enlarged, by John H. Packard, A. M., M. D., Surgeon to the Episcopal and St. Joseph's Hospitals, Philadelphia, assisted by a large corps of the most eminent American surgeons. In three volumes, with many illustrations. Vol. I, General Pathology, Morbid Processes, Injuries in General, Complications of Injuries, Injuries of Regions. Philadelphia: Henry C. Lea's Son & Co., 1881.

This great work, to whose anticipated appearance we called attention some time ago, has punctually and promptly been placed upon our table.

No reference is necessary to the original of this American edition; Holmes' System of Surgery has been too long known to require any complimentary allusions.

Since the appearance of the last English edition (from which this is taken), the changes and advances have been so great that a mere reprint would not suffice. The publishers, therefore, decided to add to the original text the comments of a corps of editors carefully selected for their especial fitness in the several departments. The entire work has consequently been carefully and critically examined, and each article, by means of these editorial comments, brought up to the times.

By the use of somewhat finer type, different arrangement, and a better quality of paper, the five volumes of the original are reduced to three. A considerable number of new engravings have also been added.

The scope of the present volume is indicated on its title page. Of the western revisers, James Nevins Hyde, of Chicago, revises the article on Syphilis; J. S. Jewell, also of Chicago, on Tetanus and Hysteria; Roberts Bartholow (who is “an Ohio mar.”), on Delirium Tremens; John T. Hodgen, of St. Louis, on Injuries of the Chest and of the Abdomen; P. S. Conner, of Cincinnati, on Abscess, Sinus and Fistula, Gangrene, Ulcers,

and on Injuries of the Upper Extremity. The other revisers are principally from New York and Philadelphia, and are equally well chosen.

The other volumes are promised at an early date.

This American work on Surgery will undoubtedly meet with as flattering a reception as did its predecessor in medicine—Reynold's. Each work is a library in itself, an encyclopedia; easy of reference, and its authority is final.

General Medical Chemistry, for the use of Practitioners of Medicine. By R. A. Witthaus, A. M., M. D., New York: William Wood & Company.

The title describes the book fairly. It will be useful to practitioners as a book of reference, but is not well suited to the needs of students of chemistry.

The classification of the elements adopted by the author is somewhat peculiar, and may have its advantages.

The strong point of the book is the thoroughness with which certain subjects of practical importance are treated; for example, thirty pages are devoted to the discussion of water. The action of various poisons upon the animal economy, the treatment in cases of poisons, and the best methods of toxicological analysis, are given in considerable detail.

All weights and measures are given in the metric system, and temperature in degrees of the Centigrade Scale.

Organic Chemistry, or the Chemistry of the Carbon Compounds, receives its full share of attention, and the book is furnished with a full index.

T. S.

Observations with the Hemacytometer upon the Globular Composition of the Blood and Milk. By Frederick P. Henry, M. D., Physician to the Hospital of the Protestant Episcopal Church, Philadelphia, etc., etc. Published by F. A. Davis, attorney and medical book-seller, 923 Chestnut Street, Philadelphia.

This is the Cartwright Prize Essay for the year. Dr. Henry is an able writer, and speaks in high terms of the value of the instrument, with a long name, in determining the number of corpuscles in blood, milk, etc., giving the results of an interesting series of experiments.

He also gives an account of the effect of lactation and menstruation upon the red blood globules, as well as upon the globular composition of milk. He concludes with some interesting notes on anemic cases, dwelling upon the assistance of the hemacytometer in the diagnosis.

The Compend of Anatomy, for use in the Dissecting Room in Preparing for Examinations; by John B. Roberts, A. M., M. D., Lecturer on Anatomy and on Operative Surgery in the Philadelphia School of Anatomy, Demonstrator of Anatomy in the Philadelphia Dental College, Recorder of the Philadelphia Academy of Surgery, etc. Second edition revised. Philadelphia: C. C. Roberts & Co. 1881. 16 mo. Pp. 198. Price \$1.25.

This little work has met with a most flattering reception, since a new edition is issued only six months after the appearance of the first. It is by far the best little remembrancer in anatomy with which we are acquainted, and has doubtless proved, to many an anxious candidate, a friendly companion in the ante-room of the dread "green room."

The Compend of Chemistry; With which is included a second revised edition of the "First Step in Chemical Principles." By Henry Leffmann, M. D. Member of the Society of Public Analysts of England; Lecturer on Toxicology, Jefferson Medical College; Demonstrator of Chemistry at Pennsylvania College of Dental Surgery, etc. Philadelphia: C. C. Roberts & Co., 1118, Arch St. 1881. 16 mo. Pp. 160. Price \$1.

This is the second volume of the "Compend Series;" the first being Dr. Roberts' little work on Anatomy.

The first twenty-eight pages are simply a revised reprint of a primer, issued a year or two ago by the same author, entitled "First Step in Chemical Principles." The balance of the book is devoted to descriptive chemistry.

The author's long experience in the quiz-room, and in preparing applicants for passing the Army and Navy examinations, has admirably fitted him for issuing this book on a subject that has always been the great bug-bear of the student.

The matter of nomenclature, and the questions pertaining to the atomic theory, are all rendered exceedingly plain, and as simple as possible.

We wish that all "compendes" were as valuable as those of this series.

SELECTIONS.

OBSTETRICS.

AMENORRHEA, (*N. Y. Record*).—In cases of this nature, due to torpid action of the ovaries, Dr. Goodell offers the following prescription:

R. Ex. aloes, ʒ j.; ferri sulph. exsic, ʒij., assafet. ʒ iv. M. et in pil. No. c. divide.

Sig.—One pill to be taken after each meal. This number to be gradually increased, first to two, and then to three pills after each meal.

If the bowels are at any time over-affected, the patient is to stop and begin again with one pill.

Where the amenorrhea is due to arrested development, Dr. Goodell has derived the very best results from the constant use of Blot's pill, as recommended by Niemeyer:

R. Pulv. ferri sulph., potas. carb. puræ, aa ʒij., mucil. tragacanth, q. s. M. et in pil. No. xlviii div.

Sig.—To be given daily, in increasing doses, until three pills are taken after each meal.

This gives the large quantity of twenty-two and a half grains of the dried sulphate of iron per diem.

If these pills give rise to constipation, Dr. Goodell uses this formula :

R. Pulv. glycyrrh. rad., sennæ aa ʒ ss., sulphur sublim., pulv. feniculi, aa ʒ ij., sacchar. purif. ʒ jss. M.

Sig.—One teaspoonful in a half cupful of water at bed-time. Where the suppression is due to change of habits and loss of health, tonics are employed. When the suppression comes on suddenly, from cold or exposure while in the midst of the menses, and is accompanied by severe lumbar pains, the patient is placed in a mustard hip-bath, a Dover's powder is administered, she is put to bed and hot drinks are given to provoke copious diuresis and diaphoresis.

Dr. Blackwood (*Medical Bulletin*) recommends the following :

R.	Strychnia sulph.....	gr. j ;
	Cinchonidia sulph.....	ʒ j ;
	Ferrum per hydrogen.....	} aa ʒ ij ;
	Assafetida pulv.....	
	Ext. quassia.....	q. s.

M. In pil. No. 60 div. Sig.—One four times daily.

He usually adds at bed-time ten drops of Squibb's fluid ext. ergot in water; and a forcible jet of cold water along the spine every morning on rising for a few moments, with brisk friction of the abdomen, succeeds admirably in many cases. Exercise in the open air, equestrian particularly, with attention to a normal action of the skin, kidneys, and bowels, essential.

PARALLEL BETWEEN EMBRYOTOMY AND THE CESAREAN SECTION—Dr. G. Eustache, of Lille, in a paper read at the London Congress, presented the following conclusions, which he believed should be the future rules of practice :—

Considering, on the one hand (1), the recent results of ovariectomy, and of all other abdominal sections; (2), the improvement in the prognosis of all surgical injuries under antiseptic treatment; (3), the success of Porro's operation; (4), the immensely favorable results both to mother and child after the Cesarean section, which have been published during recent years :

And considering, on the other hand, that embryotomy, while it always sacrifices the child, exposes the mother to as grave dangers as the Cesarean section; that it is inapplicable in many cases of deformed pelvis, *e. g.* when the conjugate is 5 centimetres and under :

I conclude :—

1. When the child is living at the beginning of labor, and when the pelvic strait is under 78 mm.—the extreme limit for the application of the forceps—the Cesarean operation should be performed early, that is to say, as soon as labor has really set in.

2. If the child is dead, and the superior strait measure 5 centimetres, recourse should be had to embryotomy. Below 5 centimetres the Cesarean section becomes an operation of necessity.

To sum up, the Cesarean section should be the method of election, embryotomy that of exception.—*Med. News and Abstract.*

THE CURABILITY OF UTERINE DISPLACEMENTS.—Dr. Paul F. Munde, of New York, finding that the text-books either entirely omit all mention of the possibility of permanently curing displacements of the uterus by any of the methods in use, or give but vague statements on the subject, and impressed with the importance of having some positive conclusions on the matter, both for the sake of the patient and the satisfaction of the physician, in a paper presented to the London Congress has analyzed the numerous cases of displacements which have come under his care (895), and arrives at the following conclusions :—

1. Displacements of the uterus are permanently curable in the large majority of cases only when recent, or when a complete tissue metamorphosis, as occurs during pregnancy and after parturition, takes place.

2. Chronic cases (of more than a year's standing) are but rarely curable permanently, except occasionally under the last-named circumstances. Apparent cures reported by some authors and witnessed by many physicians, soon show themselves to have been but temporary.

3. Pessaries form unquestionably the most practicable, rational, and (temporarily) the most efficient means of treating uterus displacements. Cures are but rarely accomplished by them.

4. Medicated, chiefly astringent, tampons, intelligently applied every day by the physician, give the best chances for permanent cure. This is particularly true of prolapsus, but holds good for all forms.

5. Electricity locally applied deserves more extended application.

6. All methods should be persevered in for months and years before success is to be expected.—*Ibid.*

IMPROVED METHOD OF TREATING UTERINE DISPLACEMENTS.—Dr. Robert Bell, of Glasgow, in the *Edinburgh Medical Journal* for July, 1881, gives the result of his experience in the treatment of uterine displacements by vaginal tampons of cotton-wool soaked in a solution of alum and carbolic acid in glycerine. The principle is not new, for Emmet and Bozeman of New York,

and others, have advocated similar methods. Emmet, however, preferred oakum to cotton. Dr. Bell's solution is the following: Glycerine, 80 oz. alum, 10 oz.; carbolic acid, $1\frac{1}{4}$ oz. This solution, it will be observed, theoretically—and Dr. Bell claims to have found, practically—fulfills most desirable indications. The glycerine depletes, and so lessens congestion by its affinity for water; the alum constricts, and so braces up the vaginal walls; and the carbolic acid, by its antiseptic properties, renders it possible for the cotton to be retained for a convenient length of time. Dr. Bell at first used the glycerine of tannin of the Pharmacopeia, but although it answered the purpose well, it is expensive, and stains the patient's underclothing. The author of the paper has, during the last two years, treated two hundred cases by his method, and for eighteen months has not used a pessary at all. He usually employs only one large tampon, but in some cases of flexion uses two—a small one pushed well up in front or behind the uterus, and a larger one beneath it. In the case of prolapsus, if there be laceration of the perineum, this must first be rectified. The uterus is elevated as nearly as possible to its normal position, and there retained by a suitable-sized tampon of cotton soaked in the solution. This can be retained for three or four days without becoming offensive, on account of the antiseptic ingredient. The watery depleting discharge excited by the glycerine is believed by Dr. Bell to be much increased by the astringent. He claims to have seen patients thus completely cured of procidentia, which had existed from three to eight years, by perseverance in the treatment for from two to seven months.

Amongst other gratifying results, the author especially mentions the speedy disappearance of bladder symptoms in antelexions and versions. To sum up, the advantages are: freedom from the dangers of hard pessaries such as erosions of vaginal mucous membrane, peri-uterine inflammation, &c.; the depleting effect of the glycerine and alum in diminishing congestion and hyperplasia; the rare necessity for the use of the (always more or less dangerous) probe or elevator in flexions; and, lastly, the fact that the physician, with only an ordinary amount of experience and intelligence, can, under proper directions, manage an ordinary case of displacement requiring treatment.

The disadvantages are, to the busy physician, the tedious, prolonged nature of the treatment; and to the patient, the annoyance of such frequent repetitions of unpleasant applications, with the watery discharge consequent upon them. In a certain proportion of cases, we believe that these objections will not weigh as against the good effects to be obtained. On the other hand, the practitioner who has the necessary mechanical ingenuity, and has acquired some experience in the use of pessaries, will not readily give up a means of treatment which, combined with the anti-congestive hot water

vaginal injections of Emmet, yields such frequent satisfactory results to his patients, with comparatively little trouble to himself. — *Can. Med. and Surg. Journal*.

TREATMENT OF LEUCORRHEA IN CHILDREN.—Leucorrhœa in children, says M. Bouchut, (*Practitioner; from Le Praticien*) is caused by vulvitis, not vaginitis or metritis. He treats this condition by extreme cleanliness, repeated bathing with bran-water and lead-water, lotions of corrosive sublimate (two grains to ten ounces of water), carbolic acid (two grains to the ounce), and occasionally solution of nitrate of silver (three grains to the ounce). In the intervals of applying the lotions a pledget of lint saturated with coal-tar or an ointment of red precipitate may be placed between the labia. Such a pledget kept in place by a pad protects the surrounding parts as well as the labia themselves from the irritating secretion, which is often present in considerable quantities. For the general treatment M. Bouchut recommends the administration of cod-liver oil and quinine to strumous patients, and of arsenic to those with eczematous eruptions.

SURGERY.

PAINS IN THE FEET.—In a paper read at the Boston Society of Medical Improvement (*Boston Journal*), Dr. Curtis enumerated the various affections in which *pododynia* or *podalgia*, or painful affection of the feet, may exist independently of all signs of the part itself. These are—1. *Urethral stricture*, as observed by Luxmoor, Brodie, and many others. 2. *Vesical calculus*. Pitha relates a remarkable case of a patient who was enabled, by the diminution of a sense of burning of the sole of the foot, to indicate precisely the progress of the diminution of the calculus by means of lithotrity. 3. *Cysto-prostatitis*, or inflammation of the neck of the bladder. In a case met with by Dr. Curtis, the pain in the neck of the bladder was accompanied in corresponding degree with pain in the feet of a similar character. 4. *Cystalgia*, or neuralgia of the neck of the bladder. Pitha is himself a well marked example of the co-existence of the two affections. 5. *Gout*. Under this head the observations of Paget, Duckworth, and Weir Mitchell are referred to. 6. *Renal calculus* occasionally gives rise to pain irradiated to the heel. 7. Fournier and others describe this pain as occasionally met with in *syphilis* and gonorrhœa. 8. In *locomotor ataxy* the heel may be the first, or, for a while, the principal seat of the lancinating or boring pains characteristic of the first stages. 9. Prof. Gross describes an obscure form of pain in the feet, under the name *pododynia*, which is met with in certain sedentary classes of artisans, especially tailors.—*Phil. Reporter*.

I.—5.—5.

MIMIC OF PHANTOM ANEURISMS.—Dr. Samuel West describes eight cases of temporary pulsating tumors, situated in the outer sub-clavian region, and accompanied with thrill and murmur, and sometimes dilated veins. In all, the remarkable feature was the temporary duration of these symptoms, which appeared and disappeared, usually associated with states of excitement or quietude. The prominence of the tumor, with the other physical signs, suggested aneurism of the axillary artery, but in all the cases the total subsidence of the symptoms disproved this view. Of the cases, seven were males, and came to Hospital complaining of debility or nervousness; and in four, of discomfort in the subclavian region. In half the swelling was unilateral, and in the other half more marked on one side than the other. A murmur was heard in all, and a thrill noticed in six. Dilated veins were present in five on the affected side. The signs were unaffected by position, but readily produced under excitement. With the exception of the pulsating abdominal aorta, to which Sir James Paget applied the term "mimic aneurism," this condition has not been described. Dr. West explains it as a disturbance of enervation, the sympathetic being at fault. It might "produce the required result by exciting contraction of the peripheral portion of the vessel, this being followed by secondary mechanical dilatation immediately above the constricted part."—*St. Bartholomew Hospital Reports, Canada Med. and Surg. Jour.*

THE ODOR OF IODOFORM may be disguised, according to Dr. B. M. Walker, of Danville, Va., (*Phil. Reporter*) by combining it with equal parts of chloral. A chloral wash will remove the odor from the hands. When the iodoform powder is to be used, the part to which it is applied is to be covered with absorbent cotton, which has previously been soaked in the chloral solution and then dried.

M. MAURIAUX, a Parisian syphilographer, does not approve of either cauterizing or excising the syphilitic chancre.

TREATMENT OF CHRONIC PROSTATIC ENLARGEMENT.—Mr. Thos. Smith, Surgeon to St. Bartholomew's Hospital, in a recent lecture published in the London *Medical Times and Gazette*, gives the following advice on the above subject:—

Your assistance will rarely be sought in the early stages of this disease; but should you be consulted by an elderly patient suffering from undue frequency or difficulty in micturition, it will always be prudent to make a digital examination through the rectum, to ascertain the condition of the prostate. The examination is best made with the patient lying down on his back. Your finger-nail being filled with soap and the finger well oiled or greased, it

should be introduced very slowly, so as not to excite spasm of the sphincter.

Should you judge that the urinary difficulty is caused by prostatic enlargement, the occasional passage of a full-sized instrument will often relieve the inconvenience, and, if steadily persevered in at regular intervals, will generally secure the patient against all the more serious consequences of the disease.

In cases where the difficulty in micturition has gone on to produce an inability to empty the bladder completely, it is of primary importance that at least once in the twenty-four hours the urine should be all drawn off; but in carrying out this plan it is necessary to exercise caution, lest by suddenly emptying a greatly distended bladder you should produce a complete paralysis of the organ, with a loss of the power of voluntary micturition and cystitis.

As a general rule, if there be not more than one pint of retained urine in the bladder—that is, urine the patient is unable to pass for himself, it may be safely drawn off at once. But if there be more than this of residual urine (and there may be several pints), you should draw it off by installments, taking away a little more each day, until the bladder is completely emptied.

This complete evacuation of the bladder, when once accomplished, should be repeated each day, by means of an instrument, and for the purpose an india-rubber catheter, a bulbous-ended or a Coude catheter, should, if possible, be used.

By these means, in an early stage of the disease, the patient will generally regain the power of normal micturition, or at all events, if this result be not attained, he will be secure from the worst consequences of the disease.

The treatment may be carried on by the patient himself if you will be at the pains to teach him how to pass an instrument—nowadays a comparatively simple process, owing to the great improvement in catheters; for you should know that since the introduction of the various forms of soft catheters now in use, the instrumental treatment of prostatic enlargement has lost more than half its terrors and much of its danger.

The large silver prostatic catheter—at one time almost the only instrument used in these cases—is truly a formidable weapon with its long shaft and wide-sweeping curve. It was constructed to ride over the prostate, but in the hands even of experienced surgeons it frequently failed in the performance of its normal functions and rode under the gland, or through its substance. Used with a strong and steady hand it rarely failed to draw off water. As an instance of its power in this respect, I may mention a case within my knowledge where a prostatic catheter in the hands of an energetic surgeon drew off some gallons of water, which, however, a post mortem examination disclosed to have come from the peritoneal cavity.

I will suppose now that you are called upon to treat a patient with reten-

tion of urine dependent upon enlarged prostate. The difficulty will usually have come on at night time; the patient will, as a rule, be advanced in years; and the prostate can be felt in the rectum unduly prominent. In such a case let me advise you first to try a flexible red-rubber catheter, of full size; it will often find its way round a corner and through a urethra which would be impervious to a more rigid instrument. This failing, you should try to pass the same catheter with a stout wire stylet reaching two-thirds of the way down the instrument; this gives you more power to push the catheter onwards, and leaves the end flexible, to accommodate itself to the distorted urethra.

Next in order you may try the Coude catheter; then, if necessary, the bulbous French instrument, a gum elastic, without and with the stylet; and lastly, others failing, a silver instrument.

Whatever instrument you may use, let it be full size; it will go in as easily as a smaller one, and is less likely to damage your patient. Keep the point of the instrument on the upper wall of the urethra; and, above all things, use no force.

After drawing off the water in a case of retention, the patient will, for a time at least, require the regular use of the catheter until he recover his power of voluntary micturition; and should there have been great difficulty in introducing the catheter, I should advise you to tie it in for the first twenty-four hours.

In the subsequent treatment of these cases of prostatic retention, in addition to other troubles, you will often have to contend against an increasing frequency in micturition. The frequent desire to pass water must be resisted as much as possible by the patient, or it will grow upon him. The bladder must be completely emptied, and, if need be, washed out, at regular intervals, and the patient exhorted not only to resist by a strong effort of the will the solicitations of his bladder, but to avoid all sights and associations that are likely to suggest to him the necessity of micturition. With this object in view, you should counsel your patient to keep his catheter and chamber-pot utensil out of sight; as soon as possible to leave his bed-room during the day; and to occupy his mind by any pursuit which may draw his thoughts away from his urinary necessities.

ALOPECIA OF THE EYEBROW.—In certain cases syphilitic alopecia destroys the beard, the eyebrow, and all hair-covered portions of the body. Alopecia of the eyebrow is a symptom which should at once put the physician upon the trail of diagnosing syphilis. It acts precisely as it does upon the head, that is, that sometimes it renders the eyebrow thin, sometimes removes the hair completely to a greater or less extent. When the eyebrow is discovered broken by a bald line, this single symptom is almost pathognomonic of

syphilis. For the baldness which often attacks the brow proceeds differently and denudes entirely the superciliary region.—*Fournier.*

SO-CALLED RUPTURE OF THE INTERNAL LATERAL LIGAMENT OF KNEE JOINT.—Dr. C. A. Jersey concludes that the injury in question really consists in a fracture of the tuberosity, into which the ligament is inserted. His conclusions are as follows: 1. Many cases of so-called rupture of the internal lateral ligament of the knee-joint are, in reality, cases of fracture of the internal tuberosity of the condyle. 2. Many of the more severe sprains are fractures of the tuberosity. 3. The absence of bony crepitus is no certain sign of non-existence of fracture at this part. 4. The diagnosis rests on the extreme lateral motion, the severity of the pain on manipulation, the localized pain always found at a certain point, and the length of time required for complete recovery.—*Can. Med. and Surg. Jour.*

SKIN-GRAFTING FROM THE DEAD SUBJECT.—Dr. John H. Gairdner, of New York (*Medical Record*), has used with success skin-grafts taken several hours after death. In such experiments those dying from wounds or by accident would be likely to yield healthy grafts.

MEDICINE.

CROUPOUS PNEUMONIA AS AN INFECTIOUS DISEASE.—Dr. E. Saunders (*Medical Record*), compares the characteristics of infectious diseases and croupous pneumonia as follows:

1. Infrequency of occurrence and number attacked. That is, acute infectious diseases do not prevail extensively some years, and when they appear the proportion affected varies very greatly. Pneumonia has occurred only rarely in some years, and it has at times prevailed epidemically in cloisters, prisons, barracks, etc. Special reference was then made to the disease as an epidemic. Again, abortive cases of pneumonia—the occurrence of such cases being acknowledged—indicate their infectious character.

2. Acute infectious diseases cannot be produced experimentally; neither can croupous pneumonia.

3. Acute infectious diseases have a stage of incubation. This is not well understood in croupous pneumonia.

4. Acute infectious diseases have a premonitory stage. So does croupous pneumonia.

5. Acute infectious diseases pursue a uniform and classical course. There is no disease which has so uniform and classical a course as lobar (croupous) pneumonia, and local symptoms remain as they do in typhoid fever, etc.

6. In acute infectious diseases, there is absence of a direct relation

between the constitutional symptoms and the local lesions. So it is with croupous pneumonia.

6. In acute infectious diseases, certain complications appear in certain epidemics and are absent in others. The complications of croupous pneumonia vary in different years.

8. Acute infectious diseases are self-limited. So is croupous pneumonia in a marked degree, and to no other disease with greater propriety can the term self-limited be applied.

9. The rate of mortality varies in each epidemic of an acute infectious disease.

10. In acute infectious diseases, there is a localization of morbid changes in some organ or set of organs. In croupous pneumonia, the localization is in the pulmonary structures, and consolidation of lung tissue is the essential lesion of the disease.

11. In acute infectious diseases, the use of remedies against the disease itself is useless.

12. The great characteristic of acute infectious diseases is their specific nature. The producing element for each member of the class is a specific poison, acting upon and through the blood.

The main conclusion reached was that croupous pneumonia is an acute infectious disease, dependent upon the introduction into the system of a specific poison; that it belongs to the miasmatic contagious group, and that in all probability the specific poison is taken into the body by inhalation.

FOR FRESH COLD IN THE HEAD.—Dr. T. F. Houston, (*So. Med. Rec.*):
For fresh cold in the head, accompanied with obstruction in the nasal passages,

R.	Carbolic acid.....	3 i
	Absolute alcohol.....	3 ij
	Caustic solution of ammonia.....	3 i
	Distilled water.....	3 ij

M. Make a cone of writing paper; put a small piece of cotton in it; drop on the cotton ten drops of the mixture, and inhale until all is evaporated. Repeat this every two hours until relieved.

PURGATIVES BY HYPODERMIC INJECTIONS.—It has been found (*Paris Medical*) that hypodermic injections of aloin (the alkaloid of socotrine aloes) will cause purgation when used in doses of one twenty-fifth of a grain. We can thus, by combining apomorphia and aloin, produce an action each way without having to introduce anything into the stomach.

THE TREATMENT OF DIARRHEA IN PHTHISIS.—Dr. Williams states that the diarrhea arising in cases of phthisis from the ulceration of the alimentary tract requires very careful treatment. The great point to be kept in view is the healing of the ulcers, and this can only be attained by shielding them from all irritable substances and by promoting a healthy granulating action. The treatment in fact resolves itself into three sets of measures: (1) Rest in bed and the administration of only such food as can be quickly and easily assimilated without causing much distension of the intestine or accumulation of flatus. (2) Warm applications to the abdomen in the form of linseed poultices, &c., to reduce the pain and promote a certain degree of derivation to the skin. If the pain be severe a small blister over the area of tenderness to the touch is advisable. (3) Internal medicines. Where there is reason to suppose that the ulceration is slight and is confined to the small intestines, the diarrhea may be treated by bismuth and opium, or by some astringents. The liquor bismuthi et ammon. cit. (B. P.) is a convenient form, but not always so effective as the powdered carbonate or nitrate of bismuth in ten to twenty grain doses. Dover's powder combined with it in ten grain doses is often effective. The most powerful astringent is sulphate of copper, in quarter to half grain doses, combined with half a grain to a grain of solid opium. Of the various vegetable astringents, tannic acid in four grain doses answers best; but it should, in every case, be combined with a certain amount of opium to reduce the irritability of the ulcers. Indian bael, especially a preparation of the fresh fruit, is often efficacious in checking the diarrhea, if the ulceration be limited. If, however, the ulceration attack the large intestine as well as the small, recourse must be had to injections and suppositories. The enema opii (B. P.) administered twice a day, is sometimes sufficient, and may be strengthened by the addition of acetate of lead (four grains to an injection) or of tannic acid, five grains. When the ulceration is very extensive and involves the greater part of the large intestine, an attempt should be made to apply the remedies more thoroughly to the mucous membrane, and for this purpose injections of larger amount—from a pint to a pint and a half—may be used, consisting of gruel or of starch, or best of all, of linseed tea, and all containing a certain quantity of opium (thirty to forty minims of the tincture). The linseed tea appears to exercise the same beneficial effect on the ulcers of the large intestines as it does on follicular ulceration of the throat. In cases where the stools are very fetid glycerin of carbolic acid may be added with advantage to the injection. In many cases where it is desirable not to distend the large intestines, suppositories of morphia (from half a grain to a grain) or the compound lead one, or those of tannic acid are indicated. When the lardaceous degeneration has so far advanced as to reach the intestine, Dr. Williams thinks that the case is beyond any effectual general treatment; he is therefore content to restrain

the diarrhea by astringents, the more powerful the better. Tannic acid, in from two to four grain doses, with dilute sulphuric acid, sulphate of copper, or sulphate of zinc, are the most useful, and injections of these substances do some good.—*Lancet*.

NOSTRUMS IN THEIR RELATIONS TO PUBLIC HEALTH.—Albert B. Prescott, M. D., F. C. S., in an able article on this subject published in the *Physician and Surgeon*, says:

It may be submitted now that *the use of patent medicines without a knowledge of their composition does injury to the health of the people*:

1. Because they may, and in fact sometimes do, contain powerful or poisonous articles unsuspected.
2. Because they always may be, and often are, inert, and become a false reliance to the neglect of other and due measures in the care of health.
3. Because they are liable to be changed in composition, so that any experience of their effects, as they are purchased at one time, is not conclusive as to the same named articles purchased at another time.
4. Because it is submitting disease to the treatment of a distant and irresponsible stranger and hazarding health in an apparent game of chance.
5. Because they are trusted to act as antidotes in the sense in which no medicines can so act.
6. Because they favor excessive recourse to medication, and thereby increase the resort to physicians and intensify the demand for the physicians to give medicines whether needed or not.
7. Because their analysis shows the greater part of them to be given with multiplied falsehood, and the patronage of falsehood must be demoralizing both to the mind and to the body.—*Louisville Med. News*.

MILK INDIGESTION.—Dr. Eustace Smith refers many of the ills of children to rapid precipitation of caseine, and consequent inability of the digestive apparatus to dispose of the curds. Diarrhea or constipation, with or without vomiting, may result. He remedies this difficulty by giving the child, before his milk is taken, thick barley water, rendered alkaline by lime water or the soda bicarbonate. Mixing the milk and barley water, or giving the water after, is not efficient. The barley water must be in the stomach when the milk is ingested, and the curds are then small and flocculent, and easily digested.—*British Med. Jour*.

DR. CZARTORYSKI (*Mich. Med. News*), says he has, since 1855, treated over 1,000 cases of diphtheria, and has lost none. His treatment consists of the use of lemon juice. [Dr. Czartoryski is certainly conspicuously inexact, either in his diagnosis or his statements.]

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For months past the eyes of the Nation have been firmly fixed on Washington, where the loved and honored Chief Magistrate of over forty millions of people lay grievously wounded by the hand of a dastardly assassin. The details of this great tragedy are familiar to the inhabitants of the most remote and isolated hamlet in the land, while the names of the physicians in attendance have become household words. So keen was the public interest as regarded Mr. Garfield's physical condition, that the journalists of the Republic placed their columns at the disposal of the more enterprising members of the medical profession, and the amount of erudition displayed on subjects of anatomy, physiology, surgery and medical ethics, has awakened the admiration of the laity not only at home but abroad. Even the London *Times*, that most eminently conservative of English periodicals, was forced to admit that "President Garfield will reap the full benefit of American surgery; for not only have American surgeons had comparatively recent experience of campaigning, but they occupy a leading position in the first rank of their profession."

Such flattering encomium must needs have fallen sweetly on the ears of the celebrated Washington specialist of the knife and tourniquet at a critical moment, for

"How he solicits heav'n

Himself but knows; but strangely visited people,

The mere despair of surgery, he cures."

The days swung in and out like the grooved edges on the wheels of Time, and yet the exact location of the ball was not discovered. Certain it is that the examining surgeon was wont to insert his index finger in the gaping wound, or—not content with this procedure—to drop the gleaming probe to its full length, for the purpose of ascertaining the direction taken by the deadly missile. Such tender treatment was no doubt calculated to alleviate the sufferings of the distinguished patient and hasten his recovery.

I.—5.—6.

Listerism was practiced to a certain extent; for, acting on the theory that the bullet perforated the liver, the cavity of the wound was washed out with a solution of carbolic acid in order to prevent the destruction of living tissue and the development of septic symptoms. To be sure there was a nocturnal rise of temperature, but this must be attributed to the malaria wafted across the swamp lands of the Potomac—swamps which, like the Pontine marshes of ancient Rome, tend to destroy the health of all good citizens of the Capital City.

The study of rest, as a therapeutic agent in gun shot wounds, seems to have attracted the attention of the leading Washington surgeons, for

"What so strong,
But wanting rest, will also want of might?
The sun that measures heaven all day long,
At night doth bait his steeds the ocean waves among."

The White House has been the scene of extraordinary quietude. To be sure, a score of carpenters pounded their hammers and rasped their saws, and a couple of fire engines puffed away, but ventilation by means of compressed air and various refrigerating patents had to be tried. The Presidential apartment, however, was perfectly noiseless; for only members of the Cabinet, the medical profession, the personal friends, and the artists of illustrated journals were admitted. A late picture in Frank Leslie's shows, by actual count, only five members of the Cabinet, seven doctors and two nurses, grouped around the sick bed. Prominent in the foreground stands Dr. Bliss, carefully engaged in dropping medicine from a bottle. In the background, waving a fan, is a remarkable figure, which at the first glance resembles the Surgeon-General of the Army, clad in a striking uniform of skirts and ruffled pantalettes; but we learn, by reading the name printed underneath, that we are gazing on the highly intellectual features of that great rival of Surgeon Bliss, *i. e.*, Dr. Susan Edson!" We trust that this graphic sketch may be enlarged, copied in oil, frescoed, and then pasted against the dome of the Capitol, for the honor and glory of future generations of American surgeons.

Speaking of Bliss reminds us that his name has been too lightly treated by his *professional confreres*. It seems to be forgotten that this celebrated surgeon was the discoverer of cundurango—that potent herb once so widely extolled and endorsed by an ex-Vice President of the United States. Surgeon Bliss found this plant while engaged in gunning after the broad-winged condor, near the village of Durango, on the sunny and palm-clad slopes of the Andes, and by a beautiful philological arrangement he stuck the word condor to the word Durango, hence Cundurango. The plant was now the celebrated specific for cancer, and the afflicted took kindly to a remedy which sold for ten dollars an ounce; as singeth Dryden:—

" Poor human kind, all dazed in open day,
Erred after *Bliss*, and blindly missed their way."

Surgeon Bliss probably made a handsome thing out of this speculation, but fractured the code of ethics badly, leading each member of the regular profession to exclaim with the poet Milton :—

" *Bliss*, as thou hast part, to me is *Bliss*;
Tedious, unshared with thee, and odious soon."

Shortly after the discovery of cundurango, the name of Surgeon Bliss disappeared in the cloudland of obscurity, but lately emerged again in brightness on the horizon of Washington notoriety, shining like a new-born comet, with Surgeon-General Barnes and the medical department of the Regular Army as a phosphorescent tail; and this, too, notwithstanding a code of ethics, that forbade a too close professional communion with the original cundurango man and the violation of ethical rules. Under such extraordinary circumstances, however,

" Kindness for man, and pity for his fate,
May mix with *Bliss*, and yet not violate."

One medical gentleman in Washington, Dr. Baxter,—not the author of "Saint's Rest," but Medical Purveyor of the United States Army—must not be included in the War Department list. Not that Dr. Baxter was unwilling to meet Surgeon Bliss, but that the latter gentleman did not desire such consultation. The Medical Purveyor, irritated beyond measure by the conduct of Surgeon Bliss, used language deemed personal under the duelling code, the high-toned discoverer of cundurango replied in words of equal warmth.

" The broil long doubtful stood;
As two spent swimmers do cling together
And choke their art."

Finally Dr. Baxter retired and forthwith vented his spleen in a card to a friend, which card was, of course, duly published in a daily paper for the benefit of a disgusted public. Dr. Baxter's little essay on medical ethics was, in itself, a violation of the code, and in shocking bad taste considering the time and circumstances under which it was written.

The American people will not soon forget the disgraceful medical wrangle that occurred in an ante-room of the White House—almost in the presence of a dying President; neither will an indignant profession overlook an affair that must inevitably bring upon it the bitter satire of some future Moliere. It will be remembered that Dr. Baxter's name was sent to the United States Senate, at its last session, for confirmation as Surgeon-General, in place of Dr. Barnes, the present incumbent, who was to have been entered on the retired list. For some State reason Dr. Baxter's name was afterwards with-

drawn. Can it be that Surgeon Bliss is now an aspirant for such high official honor? Professional wrath and jealousy—

" Will not be answered so;
For they are ever jealous for a cause,
And jealous for they're jealous."

Doctor Bliss, notwithstanding all his professional faults, is to be commended for one grand stroke of medical policy, *i. e.*: calling on Drs. Agnew and Hamilton for surgical assistance. Physicians throughout the country universally endorsed this action, for true merit was recognized at last, while the Republic proclaimed—

" We shall use them
As we shall find their merits and our safety
May equally determine."

T. C. M.

LISTERISM.

For several years—indeed from the very inception of the idea—we have been consistent in our opposition to what is called Listerism. We have not discredited the results claimed to have been obtained by the system, we have only insisted that these results were due to the perfect cleanliness necessitated, and to the infrequent dressings. Nearly five years ago we wrote: "We venture to predict that in a very few years the antiseptic system will be laid on the shelf, with the dust-covered remains of a thousand and one other medical follies." At that time the medical journals were full of the system, while surgeons throughout the country were apparently vying with each other in their efforts to be the first to "adopt" it.

But now all is changed. In America no one uses it; while in England, Lister himself is about forced to apologize for his creation.

Listerism is dead.

We are led to make these remarks by reading an account* of a most remarkable occurrence that transpired at the last meeting of the International Congress. Listerism was being discussed. Wells took strong ground in its favor. So did Volkmann and some others. Then Mr. Keith arose to close. "Never in the history of surgery did a few modest words make such a recoil in the currents of expectant thought as his."

We quote now directly from the account:

"It has been said, and was repeated by Volkmann and Kuget, in this discussion, that intra-peritoneal surgery was the "touchstone of Listerism." Professor Keith has been quoted the world over, again and again, as not only a warm disciple of Lister, but as illustrating in his remarkable success

* Boston Medical and Surgical Journal Aug. 25, 1881.

in ovariectomy, *more than any other surgeon*, the value of the antiseptic, or rather the Listerian method. No one can deny this.

So slowly were his few words uttered that I can almost repeat every one *verbatim*.

You can imagine the effect much better than I can describe it when he said that for several months past he had abandoned the antiseptic treatment altogether. 'True,' he said, 'I had eighty successive recoveries under Lister's method, and *stopping there* it would be a wonderful showing. *But out of the next twenty-five I lost seven.* One died of acute septicemia, in spite of the most thorough antiseptic precautions; three of unquestionable carbolic acid poisoning; one of renal hemorrhage.' He went on to say that out of the eighty consecutive cases many came too near dying; that a large number got a high temperature— 105° , 106° , 107° Fahrenheit—the evening following the operation, but, he said, 'they happened to pull through.' He then said that since he had for four months past abandoned the antiseptic method, and relied upon perfect cleanliness, care in controlling hemorrhage, and thorough drainage, his cases were giving him much less trouble, and he was getting more satisfactory results.

He now stopped for a few moments, hesitating, as he must have realized the importance of his words, knowing that the whole world was lending a listening ear to his utterances. The silence was audible. Then he raised his head, and looking his audience squarely in the face, he said, 'Gentlemen, I have felt it my duty to make these statements, for *they are true*,' and took his seat. I shall not attempt to describe the applause, nor the effect of his statements. Professor Keith, by the way, told me privately that he almost died himself from using the carbolic acid so much. He got renal hemorrhage and debility to an alarming degree. He said, moreover, that he never had great faith in it, and should not have continued its use so long, but for the fact that so many eminent men were carried away with it; and if, after his remarkable series of cases, he had changed, and lost seven out of twenty-five without Listerism, all the world—he himself—would have attributed the result to the change."

And what had Mr. Lister to say to all this? Nothing. For four days he kept entire silence, and then, when forced to speak, could make no answer. He was expected to come forward with such an array of statistics as should overwhelm opposition; but he had none to present. On the contrary, he declared himself about ready to abandon the spray. As to carbolic acid, he said he was "forced to admit its unfortunate character;" and not a word did he offer as to any substitute for it. As one reads the account, he can but feel that Lister himself must have regarded the occasion as a funereal one.

The ism is dead. It will be some little time before all its friends throughout the world become aware of its untimely demise, but in due time a suitable tablet will be erected to its memory and the system itself laid away in its niche in the grand old mausoleum where repose so many kindred delusions.

THE article by Dr. Bliss, which we have copied from the New York *Medical Record*, is of such special, as well as historical, interest that we have

thought best to present it in full, for present reading and future reference.

While we do not fancy Dr. Bliss, nor approve of his methods of doing business, the intrinsic value of the report renders its publication desirable.

We are under great obligations to Messrs. William Wood & Co. for the use of the accompanying engravings.

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THE POWELL MANUFACTURING COMPANY, of Baltimore, offer to the profession a combination of Beef and Cod-Liver Oil, with Pepsin. It comes highly recommended by physicians who have used it, being especially recommended for those cases where ordinary cod-liver oil is not digested.

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NOTES AND COMMENTS.

MEDICAL ECONOMY.—Two rival practitioners in a neighboring village have an effective and novel way of satisfying the public with their charges. Dr. B. presents to his patient a bill of twenty-five dollars for reducing a simple luxation at the shoulder-joint. The patient objects, and threatens to consult Dr. A., the rival, on the propriety of such an extortionate charge. Dr. B. says, "A. is such a scoundrel that he is liable to say what he thinks would be to his own advantage. He is an excellent doctor, and is always loyal to the public, but in his professional relations is a regular pirate. I desire you to understand that I am entirely able to make and sustain my own charges, and that I shall give no heed to what he may say."

Dr. A., upon seeing the bill, and hearing the patient's explanation, puts it indignantly into his pocket with a savage biblical comment about the professional rascality of Dr. B., at the same time remarking, that B., while a rascal in his relations with other practitioners, is, for some strange reasons, a skillful doctor. Then he enters upon a most blasphemous tirade against him, saying, that for such an outrageous bill, he will, by means of this documentary evidence, have him expelled from the State Society; that he thinks of leaving that town, because of the professional villainy of Dr. B. He calls him a score of hard names, and gives emphasis to the attack by the free use of adjectives and other parts of speech, quoted directly from the unrevised Scripture, and when he is out of breath from much savage abuse of his rival, the patient, frightened all out of his senses, meekly inquires what would, in A.'s opinion, be a proper charge for such an operation, when A. turns furiously upon him and says: "You are an idiot, sir; it ought to be at least fifty dollars. Such a scoundrel as Dr. B. makes it impossible for a respectable physician like myself to live in this cramped-up little town." Exit B's patient. It is said that each of these gentlemen keeps the other constantly informed of the names of his dissatisfied patients.—*Chicago Med. Review.*

ABSORBENT COTTON.—Take of the best quality of carded cotton batting, any desired quantity, and boil it with a 5-per cent. solution of caustic potassa or soda for one-half hour, or until the cotton is entirely saturated with the solution, and the alkali has saponified all oily matter. Then wash thoroughly, to remove all soap, and nearly all alkali; press out the excess of water, and immerse in a 5 per cent. solution of chlorinated lime for 15 or 20 minutes; again wash, first with a little water, then dip in water acidulated with hydrochloric acid, and thoroughly wash with water; press out the excess of water, and again boil for 15 or 20 minutes in a 5 per cent. solution of caustic potassa or soda; now wash well, dipping in the acidulated water and washing thoroughly with pure water. Afterwards press out and dry quickly.
—*Amer. Jour. Pharm.*

SOME roistering students gave a fellow a dose of skunk liquor by inhalation, with the effect of producing complete anesthesia. Webster says that "this liquor possesses valuable medicinal powers," so that our druggists must soon expect calls for "Liq. Meph. Amer." A golden opportunity is here offered for some "elegant pharmacy."

"IF a doctor has the luck to find out a new malady, it is tied to his name like a tin kettle to a dog's tail, and he goes clattering down the highway of fame to posterity, with his æolo attachment following at his heels."—*Holmes.*

HOSPITAL LIBRARIES.—M. Jules Ferry has taken the wise and kind initiative of creating a library for patients in every hospital in Paris. It is intended that the system shall be extended to the whole of France.

SIR WILLIAM JENNER'S REPLY, when requested to consult with the homœopathic attendant of Lord Beaconsfield: "I must decline, for between us no agreement is possible, and with me compromise is impossible."

THE incorporation of the College of Physicians and Surgeons of Chicago is announced: capital, \$30,000; incorporators, A. Reeves Jackson, C. Warrington Earle, and D. A. K. Steele.

"A CONSULTATION is a meeting of physicians in which the counsellors agree with the attending physician, and change the treatment."—*Bulwer.*

FOR "SCRATCHES," in horses, the *Scientific American* recommends a paste of flowers of sulphur and glycerine, applied night and morning.

IT is said that the excessive use of the bromides may produce insanity, of the maniacal type.

THE OHIO MEDICAL JOURNAL.

Vol. I.

DECEMBER, 1881.

No. 6.

COMMUNICATIONS.

CASES OF TETANUS.

BY J. H. POOLEY, M. D., COLUMBUS, OHIO.

Read before the Central Ohio Medical Association.

In consenting to read a paper before this association on the subject of Tetanus, I had no intention of presenting a general history, or description, of this disease. What I have the honor to offer for your acceptance is simply the account of some cases that have occurred in my practice, together with my own ideas of the pathology and treatment of the affection. These ideas may not have much originality about them, but they are at any rate the results of personal experience and observation, and not simply a compilation of the views of others.

CASE I.—Jan. 7, 1862, I amputated the thigh of a boy fourteen years of age, who had been run over on a railroad in Washington, D. C., but had no further connection with the case until symptoms of tetanus declared themselves. The amputation was performed just below the trochanter major, by the circular method, and the patient, notwithstanding an evident lack of proper care, went on very well until the *thirteenth* day after the operation, when symptoms of tetanus, with lockjaw and painful spasm of the stump, set in, and, in spite of all that could be done, the patient expired at the end of the second day from the first appearance of these symptoms. The large wound left after such an operation as this, is not of the kind that is usually looked upon as likely to be followed by tetanus. It does not seem probable that a nerve had been included in any of the ligatures, or the symptoms would have come on sooner, and pain would have been experienced probably from the first; and the weather was not hot, of course, neither was it excessively cold.

But there was one condition that existed, though it ought not, which de-

serves attention. I have never seen a serious surgical case so badly neglected as this was; the stump was abominably filthy, and was tightly bandaged, apparently without any preliminary cleansing, and the bandage had been left undisturbed for three or four days at a time, when, as might be expected, the condition of things within was fearful.

CASE 2.—In the summer of 1865, I was called to see a man in Yonkers, N. Y., who had got his hand mangled in some machinery at a hat factory, and went to a homeopathic physician, who dressed it at his office. He subsequently, the next day I think, went to a regular practitioner, who dressed it for him, but appears to have paid very little attention to it. The next day, the third from the injury, he sent for me, and I found him suffering from well-marked tetanus. His hand was in a very filthy, stinking condition, done up in a large poultice which had evidently not been changed for a long time; there were several parts of fingers in a state of gangrene, and the whole hand seemed hopelessly lost. As he was very poor, and his surroundings extremely wretched, and we had no local hospital at that time, he was sent down to a hospital in New York City, in a carriage, with some ether to inhale for the relief of spasm by the way. He died soon after reaching the hospital.

CASE 3.—June 28th, 1868, I was asked to see in consultation a young man, who the night before, in a street brawl, received a pistol shot wound in the right thigh. I found the patient, a fine, athletic young Scotchman about nineteen years of age, in bed, with a small round opening, as of a bullet wound, about the middle of the external aspect of the thigh, over the vastus externus muscle. The physician in attendance, who had been called to him the night before, soon after the receipt of the injury, had not been able to find the bullet, which was evidently a small one. I was equally unsuccessful. Cold water dressing was applied to the wound, and rest enjoined. There was scarcely any pain, swelling, or redness about the limb. The case went on very favorably for several days, there being scarcely any evidence of inflammation, and no discharge from the wound. July 4th, just about a week from the wound, I was again requested to see him, at 10 P. M. I found him in an advanced stage of tetanus. He was strongly opisthotonic, his body resting during the paroxysms on the heels and occiput, while his back formed a high arch, under which several pillows were stuffed; his jaws were firmly locked, the *risus sardonicus* well marked, and his whole appearance frightful in the extreme. Every few minutes he was seized with universal spasms, in which he roared out from excess of agony. Pulse quick and feeble. These symptoms of tetanus had come on the day before, and their importance was at first overlooked by the family, who failed to notify the doctor. A hypodermic injection of twenty minims of Magendie's solution of morphia was administered at once, and one drachm

of bromide of potassium ordered to be taken every hour. (I had not yet learned how to treat tetanus.) These remedies alleviated the symptoms somewhat, but he died the next morning at seven o'clock, and at 3 P. M. the same day an examination was made of the wounded leg. On making the necessary dissection I found the bullet, a somewhat singular one, being formed of tin foil, such as is used to wrap tobacco in, rolled and pressed together into a pretty firm ball. It was quite small, and somewhat disintegrated, or unrolled, and was found in the middle of the vastus externus muscle, surrounded by a small quantity of dirty, fetid pus. Although carefully looked for, no special injury of nerve fibres could be detected. It is important to remark that the weather at this time was most extremely hot.

CASE 4.—Johanna O'C., aged thirty years, native of Ireland, was admitted to the St. John Riverside Hospital, Yonkers, N. Y., Oct. 29, 1873; married; mother of six children, says she has always been healthy. Ten days before, while in a state of intoxication, she fell and struck her right hand against a sharp jagged stone, inflicting a lacerated wound diagonally across the dorsal surface of the the first phalanx of the ring finger, near the joint. She brought it together with sticking plaster, which next morning she changed for a poultice, and then for soap and sugar, and finally for some salve, ingredient unknown; but among all these means of treatment cleanliness was never included. About four days after the injury the finger became very much inflamed, and discharged a thin matter in moderate quantity, which continued up to the time of her admission.

When admitted, the wound presented an unhealthy appearance, filled with pale, rather luxuriant granulations; the discharge was thin and sanious. The day before her admission, she began to have stiffness of the jaws, and pain in the masseter muscles, also in the head, and in the chest over the sternum, reaching down to the epigastrium, and in the back of the neck.

The pain, though constant, is increased in paroxysms which are accompanied with spasm of the masseter, and muscles of the neck, with marked retraction of the neck, and spasm of the muscles of respiration. The spasms are quite severe, and accompanied with difficult respiration, sobbing, and loud complainings. She is a woman of violent and utterly ungoverned temper and emotions. Her skin is moist and natural, pulse weak and small, 106 per minute, respiration 40, temperature normal. She says she has not eaten much for a week, first from pain in her hand and arm, latterly from inability to open her mouth. Her tongue is coated, and of a dark purple color; her incisor teeth cannot be separated more than a quarter of an inch—barely that—any attempt to open them more widely provokes pain and spasm; during a paroxysm they are tightly closed. Pupils normal, responsive to light; urine copious and natural. She was etherized and a free incision made over the injury down to the bone, and considerable pent up, offensive

matter discharged ; the bone was found carious, and the joint completely disorganized. The injured finger was enveloped in a flax-seed poultice, and five drops of a tincture of Calabar bean (equal to one grain of the powdered bean) ordered to be taken every hour, with strong beef tea and milk at about the same intervals. The administration of the Calabar bean was commenced at noon. She had paroxysms every ten minutes up to 5 P. M., one between 5 and 5:45 P. M., and none during the night, resting pretty well.

Oct. 30th. Had a spasm at 7 A. M., and another at 9 more severe ; pupils not at all contracted. Noon : Has had very frequent paroxysms since morning ; gave half a grain of morphia hypodermically, which procured some sleep ; ordered the tinct. Calabar to be increased to twenty drops every hour. 4 P. M. : Has had another half grain injection of morphia, since which she has had no spasms up to six o'clock, and is much quieter, and sweating freely, complains of itching of the skin (effect of morphia), pulse 100, temperature in the rectum $100\frac{1}{2}^{\circ}$; mouth can be opened to the extent of one half an inch.

Oct. 31st. Has been pretty quiet during the night, but has had some hard spasms ; at 5 o'clock A. M., was in great distress, an injection of half a grain of morphia quieted her as before ; had two more paroxysms between that and 9 o'clock. Ordered twenty-five drops of the Calabar tinct. every hour ; mouth opens three-quarters of an inch. Evening : Condition about the same as last report ; skin cool and sweating.

Nov 1st. Patient had a bad night, slept very little ; has had three hypodermic injections of morphia of half a grain each since the last report. At 9 o'clock A. M., is tolerably quiet. Pulse 120 ; opisthotonos more marked than at any time ; ordered the tincture to be increased to thirty drops every hour. Evening : Has been worse all day ; paroxysms have been frequent and violent, necessitating two hypodermic injections as before ; she has taken less nourishment, and is weaker ; spasms are both more violent and more general ; breathing and swallowing both interfered with, is cyanotic. Increased tincture to forty drops.

Nov. 2nd. Patient had two hypodermic injections last night : she is quieter to-day, has had no decided paroxysms, her neck is firmly retracted, but her jaws open better. To-day she is to take fifty drops of the tincture every hour, to take it every two hours through the night ; whiskey, an ounce every two hours, added to her milk and beef tea.

Nov. 3rd. Patient failing ; no paroxysm, but she is partially delirious and very weak, with rapidly failing circulation. She died quietly at 9:30 A. M. Her temperature, which was carefully recorded three times a day, never was higher than $100\frac{1}{2}^{\circ}$, and was most of the time normal. No post mortem examination was permitted.

Notwithstanding the fatal issue of this case it was evident that the Calabar

bean had great power in controlling the paroxysms, and I felt strongly encouraged to give it a further trial. Large as the doses administered may seem to some, they were almost trifling compared to the quantities I have since exhibited in several cases with the happy result of curing my patients; and I am firmly convinced we have now a powerful agent for the control and cure of tetanus, only it must be given in unsparing doses, but of course not without careful watching for its physiological effects, which, however, I must say I have seen nothing of as yet. This may seem strong language to use on such a slender experience as mine, but if one waits for a large experience in tetanus before forming or expressing an opinion, he may wait a long time, and I am already firmly convinced that we should have accumulated many more favorable facts to guide and encourage us, had this remedy been more fearlessly and heroically given. I do not inculcate rashness, but I would certainly push the drug unhesitatingly until the physiological effects, such as feebleness of the heart's action and contraction of the pupils, demanded a cessation, or the tetanic spasms were controlled.

This patient was in every respect a bad and unpromising subject, addicted to intoxication, dirty and abandoned in all her habits, and withal miserably poor and run down from irregular and insufficient nourishment.

Upon reflection I am obliged to confess that I think the local treatment was not wholly above criticism. I am now convinced that the injured finger ought to have been amputated. If this had been done and the stump left open and dressed with warm water, or an aqueous solution of opium, or chloral, it might have added something to her chances; although as it was very freely opened so as to discharge all secretions as soon as formed, perhaps a great deal of stress cannot be laid on this.

Case 5.—Fritz Ranan, Aged 21, admitted to the St. John's Riverside Hospital Aug. 19, 1874. The day previous to his admission he was working in a sugar refinery, and in walking past a large vat of boiling sugar, or syrup, tripped and fell into it up to his waist. He quickly got out again, but not before being terribly scalded by the boiling fluid. Both legs were very badly scalded, the epidermis removed and the parts raw and weeping, penis and scrotum badly scalded and greatly swollen; denuded patches of various extent on the back, sides and belly; the upper part of the body escaped.

A liniment consisting of one part carbolic acid to six of olive oil was applied freely to all the scalded or burned parts; half a grain of morphine ordered at bedtime.

August 22d. Very free purulent discharges from all the burned surfaces of an intensely disagreeable odor. Patient suffers severely, particularly when the burns are dressed.

September 1st. In many places the burns are seen to have involved the

tissues much deeper than the epidermis, the whole skin having sloughed away, leaving ulcerated surfaces, taken altogether of great extent, which are granulating healthily. A large amount of pus is discharged daily, and the patient begins to look pulled down and worn out by suffering, and the profuse suppuration. At this time as he lay in bed, just before the customary time of dressing, he was almost swimming in pus, and, as the worst burns were on the posterior surface, his condition, as he lay constantly on his back, was deplorable in the extreme. The experiment was tried of putting him in a warm bath, but it only subserved the purpose of cleanliness, for he could not remain in it long enough to derive any other advantage; indeed, on the first occasion he fainted at the expiration of a few minutes. The plan was now tried of powdering over the profusely suppurating surfaces with flour and oxide of zinc in equal parts, this seemed to afford him comfort, and diminished the discharge somewhat.

Sept. 10th. Patient lies on his belly part of the day, and in this way affords a better chance for the healing of the posterior parts of the thighs and legs, where the burns are most severe. Impure carbonate of zinc (calamine) in fine powder has been substituted for the oxide, and seems to be rather more drying and absorbent. The right leg from the foot to the thigh is nearly its normal size, a little swollen; while the left, which was the most deeply and severely burned from the foot to the thigh and buttock, is very much shrunken and atrophied; the glutei muscles especially are so much atrophied as to present a remarkable contrast to those of the right side. The burns however are doing quite well, and in spots here and there are drying up and cicatrizing. Patient's appetite has been good most of the time, but he complained this morning of nausea and a tendency to vomit after eating. For a few days past diminution of appetite, furred tongue, constipation, and restlessness at night, have given notice that something was coming, but what we could not tell. A purgative was ordered, and chloral at bedtime to procure sleep, which acted well.

September 15th. Night before last patient was given chloral, twenty grains at bedtime; this did not procure sleep, and he was wakeful, and in a condition of undefined excitement all night. In the morning he was restless, though in a half dosing condition, with occasional fits of starting and expressions of terror as of a person in nightmare. Upon further observation occasional spasmodic contraction of the platysma and of the muscles of the jaw and face were noticed, with some fixation of the jaw (trismus). This morning he has difficulty in opening his mouth, which he can not do fully, and complains of sudden pains shooting all through him. Every now and then the muscles of the limbs and trunk undergo sudden and painful contractions; in short the unfortunate man has traumatic tetanus. He was ordered ten drops of a saturated tincture of Calabar bean every hour; and to take beef

tea, wine and milk punch as freely as possible. The burns are looking much better, and in many places are healing quite rapidly.

September 16. Was wildly delirious all last night; tetanus has not increased; of his tincture of physostigma, which was ordered to be gradually increased, he now takes twenty-five drops every hour.

Sept. 17th. Right leg flexed spasmodically upon the thigh, flexor tendons rigid and unyielding: takes 30 drops of the Calabar tincture every hour; ordered for his delirium and general restlessness, the following prescription in addition: Chloral, pot. bromide, aa ʒi ; aqua ʒiv . Dessertspoonful every three hours. Tetanic spasms do not increase, but the patient's appearance is that of one nearly worn out with sleeplessness and suffering.

18th. Had a good and calm sleep nearly all day, and woke up toward night feeling very much refreshed. During this sleep there were no tetanic manifestations, patient lay perfectly quiet; muscles, except of the contracted leg, relaxed.

19th. He was put in a warm bath this morning, and spoke gratefully of the sense of relief it gave him. He could not remain in the bath more than an hour, as he said it made his burnt legs very painful after he had been in it only half that time. Last night he had a good sleep. Sores continue to discharge a great deal.

20th. Remained in the warm bath an hour and a half to-day, with apparent benefit. Tetanus has become much better, paroxysms not very frequent. Has been gradually diminishing his Calabar bean tincture, and now takes 30 drops only every 3 hours.

Sept. 26th. Since the last date, the patient has been doing pretty well, the burns are gradually drying up; scarcely ever has a tetanic spasm, except when roughly touched, but one can be brought on at any time by a thrust or punch in the ribs or back; in this respect his condition resembles that of an artificially tetanized frog. Every afternoon he has an attack of mild delirium, which sometimes lasts through the night. The burns are now dressed alternately with a solution of ferri sulph., and Turner's cerate. Takes half a teaspoonful of tincture of Calabar bean three times a day; has occasionally a little watery diarrhea.

29th. Relapse. While in the bath this morning he was seized with a tetanic spasm, with severe opisthotonos, which lasted for fifteen minutes after he was got back to bed. A fresh preparation of Calabar bean was made after the following formula: Extr. physostigmæ 32 grs, alcohol. dilut. ʒi ; of this he was to have 45 drops, equal to three grains of the extract, every two hours. By afternoon the spasms had once more subsided, and the patient was quite comfortable.

Oct. 1st. During the afternoon he was seized with a terrible spasm, which lasted for two hours. The dose of Calabar tincture last mentioned

was increased to 60 drops every hour. Tetanus subsided, but he was more or less delirious all day.

Oct. 2d. Better this morning, no return of spasms, appetite good, continues tincture same as yesterday.

4th. All symptoms of tetanus having entirely subsided, the dose of the Calabar tincture was reduced to 30 drops three times a day. Patient very comfortable, sits up in bed reading a considerable part of the day.

9th. Patient improving rapidly, is lifted out of bed and placed in a chair during the forenoon; sores now confined to localized spots on both limbs, but somewhat deeper on the left; dressed with Turner's cerate. The right leg, which became permanently flexed at the very outset of his tetanic symptoms, has continued so ever since, and now, that all symptoms of tetanus have been absent for sometime, remains rigidly fixed in a semi-flexed position.

13th. The patient was placed under ether, and the contracted leg was forcibly extended; it yielded with difficulty, and bands of adhesion could be both felt and heard to give way. Any tendency to recontraction was to be met by manual extension, any apparatus for the purpose being inadmissible from the remaining sores and the tenderness of the new cicatricial tissue. He was discharged from the hospital in the latter part of December. The power of Calabar bean to control tetanus amounted in this case to a demonstration. When it was freely given the spasms ceased; when it was too soon discontinued they recurred, to be subdued by its administration with absolute certainty.

CASE 6.—A. K., aged 17, in good health, without any constitutional vice, or marked peculiarity. On Feb. 14th, 1876, he fell from the roof of an old shed, a distance of about twelve feet, and severely injured his right arm. He was brought to my office immediately, where I saw him about four o'clock in the afternoon. There was a marked deformity of the right arm near the wrist, the hand being bent backward to an angle of forty-five degrees. About the middle of the front, or palmar surface, of the forearm, just above the wrist, there protruded through the skin the end of the radius, completely and cleanly separated from its epiphyseal extremity: it was in fact a compound diastasis of the radius. The end of the bone had been forced through a very small opening in the integument, and was tightly gripped by it, so that it was necessary to enlarge the opening considerably both above and below, before any attempt could be made to reduce the bone. Even after this was done it was only with great difficulty, and after many efforts, that the reduction was effected, and to accomplish it I was obliged to use an elevator as a lever with which to pry the bone back to its place. The boy bore these manipulations, which must have been very painful, with fortitude. The arm was put on a carved splint adapted to the back of the forearm, the wound was left uncovered and dressed with carbolized oil, 1 to 7. I visited him in

the evening, and as he was suffering considerable pain, gave him a hypodermic injection of morphine, after which he slept tolerably well.

Feb. 15th.—This morning he was very comfortable under the circumstances, ordered him one-fourth grain morphia, *pro re nata*, to control pain. In the evening, about twenty-four hours from the time of the accident, he had a severe chill, lasting fifteen or twenty minutes, and soon after it a spasm or convulsion, of which I did not receive a very intelligible account, but which seems to have been tetanic. I saw him about an hour after this. He was then quiet, not complaining of any pain, but of some soreness and stiffness of the neck and back, pulse 100, temperature normal, ordered the morphine to be continued. From this time symptoms of tetanus were quickly and thoroughly developed.

Without going into unnecessary detail, I will simply say that I put him at once on Calabar bean, making use of a fluid extract, of which he took a tea-spoonful every hour, or every two, three, and four hours, as the case demanded, with twenty grains of chloral at night, and sometimes once or twice during the day. Under this treatment, with rigid attention to quietness, and regulated diet, he made a slow but satisfactory recovery. During the progress of the case I was obliged to exsect two inches of the lower end of the radius, as it was denuded of periosteum, and became rough and carious.

CASE 7.—This interesting case occurred at St. Francis Hospital, in this city. The patient, a man about thirty-five years of age, was admitted on account of numerous superficial ulcers, situated on various parts of the body. These ulcerations had some likeness to the superficial sores following ecthyma, and were suspiciously like those of a syphilitic origin, but no history of syphilis could be elicited; indeed it was distinctly repudiated. He was very pale and cachectic in appearance. After he had been in the house a few days he was attacked with tetanus of moderate severity, and the disease never reached any extreme degree. I was at a loss whether to regard this as a case of idiopathic tetanus, or call it traumatic, and attribute it to the sores referred to, which, I may here remark, though not particularly painful, were extremely sensitive and tender.

Under treatment with Calabar bean and chloral, his tetanus was quite easily controlled, and in this case the chloral seemed to be the more effective remedy of the two. At the end of the week he seemed to be recovering, was sitting up, when without warning, and to my utter surprise, he was seized one day with a severe paroxysm in which he expired, apparently either from fixation of the muscles of respiration or spasm of the glottis. I did not witness his death. There was no post-mortem. This case exemplifies one of the strange surprises of this disease, which has been noticed and commented on before, and shows that much care needs to be taken for some time after the subsidence of active symptoms, lest such a fatal relapse take place.

CASE 8.—For the following case I am indebted to the kindness of Dr. D. N. Kinsman (of Columbus). Miss H—, age 16, was taken sick on Sept. 16, 1881. She complained of pain in throat and neck, for which five-grain doses of Dover's powder were given.

17th. Condition not much changed, if anything rather worse; complains of pain in opening her jaws; this pain is referred to the articulations, no fever, pulse 90. Her father, who lived at a distance, was notified of her sickness, and came on at once, arriving on the 18th. He said that on the 7th of the month, the girl while barefoot had stepped on a nail. The right foot, the one injured, was examined. The wound had healed, but a dry blister was found over the site of the injury. There was no recognizable tenderness, but on pressing or pinching there was a spasm of the right foot and leg, the foot becoming extended and the toes pointed. At the same time there was spasmodic flexion of the ring and middle fingers of the right hand; no other muscles of the upper extremities involved. The jaws can be separated to the extent of one finger's breadth. Chloral was given in twenty-grain doses every hour. At 1 P. M., on the 18th, Dr. Hamilton saw the case, and confirmed the diagnosis of tetanus, and endorsed the treatment. Pulse 100, temp. 101°. 9 P. M., not so much spasm, jaws more relaxed, is sleeping and sweating. On pressure over the wound there is produced the same limited spasm of the foot and leg as in the morning, but not so intense. Treatment continued.

19th. About 2 o'clock A. M., the nurse reports she had spasms which seemed to stop her breath, which I find continuing. The diaphragm and respiratory muscles have become involved. Pulse 120, temp. 105°. Case much worse. The spasms are still confined to the right leg and arm (the left arm and leg remaining free). Gave chloral, 3ss, and fl. ext. Calabar bean, gtt. x. every hour till noon, when I saw her again.

The effect of the medicine has been striking; no spasms of the diaphragm, jaws are relaxed, patient has vomited, and is now taking food from a bottle. 9 P. M. Has not been able to take the medicine for six hours; pulse 110, resp. 30, temp. 103°, is resting quietly between spasms, which occur at intervals of ten or fifteen minutes. From this time the nurse reports that the spasms grew worse; at midnight they became general, affecting the left side as well as the right. She died at 9 A. M., on the 20th."

The interesting feature of this case, the one-sided spasms, which only became general nine hours before death, was perfectly new to me at the time of receiving Dr. Kinsman's notes. Since then I have come across the following short notice in the October number of the *Alienist and Neurologist*, published at St. Louis, which I transcribe entire, just as I find it.

"UNILATERAL TRISMUS.—The *Journal for Nervous and Mental Diseases* for July, referring to a case of this kind, reported of Dr. Thenee, of Ebers-

wald, and transcribed into several of the American journals as the only, one of the kind reported, calls attention to a case reported by Dr. H. M. Bannister in the issue of January, 1876. The remarkable feature of Dr. Thenee's case, is the long duration—four days—of the one-sided symptoms before both sides became involved."

From this we may conclude, as far as I know, that Dr. Kinsman's case is the third one of its kind on record.

We will now pass in rapid review some of the points connected with etiology, pathology, and treatment of Tetanus.

ETIOLOGY.—Age. All ages, even the first days of infancy, if we regard trismus nascentium as a form of traumatic tetanus, due to irritation or injury of the umbilicus, are subject to the disease. Mr. Alfred Poland, in *Holmes' System of Surgery*, says: "Of regular tetanus, the youngest case on record is twenty-two months, and the oldest seventy-five years of age. Of 449 cases there were, under 10 years of age, 29 cases; between 10 and 30 years, 261, or nearly 60 per cent.; between 30 and 50 years of age, 122; over 50 years of years of age, 37 cases." It will be seen, therefore, that the period of life most subject to tetanus is just that which is most exposed to the injuries most liable to cause it, and the question as to whether age of itself has any influence must be considered, to say the least, uncertain.

Sex.—Males appear to be most liable to it in proportion of about 5 to 1; here again we see nothing more than the increased liability of the rougher sex to its traumatic causes. If this factor could be equalized, it is not improbable that females would be the most subject to it, as the ancients asserted that they were.

Nature of Wound or Injury.—Every conceivable form of wound and injury has been followed by tetanus. The clean cut of the surgeon's knife, in both major and minor operations; the rude violence of the disastrous wounds inflicted by machinery, railroad accidents, and the missiles of war, together with insignificant punctures and bruises, have all furnished their quota. It has been known to be occasioned by cutting a nail or corn too closely, by stubbing the toe, by abrasion from wearing tight boots, by a wound of the gums, by a laceration of the fourchette in labor, by the sting of bees, by the stroke of a schoolmaster's ferrule, by the introduction of a seton; the injection of hydrocele; the lodgment of a fish bone in the fauces; the application of a scarificator in cupping; the ligature of arteries; the inclusion of a nerve in a ligature; ligature of the umbilical cord; burns; the excision of tumors; amputations; operations for hernia, of lithotomy, ovariectomy. F. H. Hamilton says he has known it to be produced by the prick of a needle. Dr. Thompson, of Bloomfield, Ohio, tells me he has known it to be caused by ingrowing toe nail.

Notwithstanding its thus occurring occasionally after all sorts of injuries,

there seems to be some ground for believing that certain wounds, as punctured, lacerated, contused, and gunshot, are most likely to produce it. Certain regions of the body seem more liable to give rise to it when wounded, such as the tendinous regions of the hands and feet. But we need here to draw our inference with caution, remembering that these parts are just those most exposed to such injuries as we have specified above. One thing seems certain, that wounds of the head and face are seldom followed by tetanus.

Conditions of the Wound, &c.—Injury to a nerve has long been one of the favorite modes of explaining the outbreak of tetanus. But when we come to look at it we find after all there is very little in it. To be sure, pathological conditions of nerves have been found in wounds in cases of tetanus. Several observers have reported redness and inflammation of the nerve at the seat of injury, and have hypothesized ascending neuritis. One reporter found the end of the severed nerve not only reddened, but enlarged into a little bulbous swelling, or neuroma; but this same condition probably exists in all or most nerves that are cut off in amputation, and yet how rare is tetanus after such operation. Another found that the nerve had reunited and was quite free from all inflammatory appearances, and the great majority of examinations have utterly failed to show any pathological nerve condition at the seat of injury. Indeed, when we reflect that in every wound some nerve or nerves must be injured, we shall be loth to regard this as at least a common cause of tetanus. Nevertheless, in some cases where special violence is offered to a nerve, it may give rise to the disease, as in the case by Mr. Key, who, in 1845, amputated a leg on account of tetanus, which had appeared six days after an unreduced dislocation of the astragalus. The symptoms disappeared at once after the operation. On dissecting the foot the posterior tibial nerve was found to have been put violently on the stretch by the projecting astragalus.

Exposure to Cold.—Exposure either of the wound itself, or of the patient, to draughts of cold air is a frequent cause of tetanus. Dr. Agnew, of Philadelphia, says: "But there is another peril which may follow, even when the whole surface is covered with healthy granulations, especially should the part be exposed to a current of cold air, or the body to influences liable to provoke a chill; and that is tetanus. I view with horror the surgeon who dresses a healing wound while a draught of air is blowing upon it." He gives some cases strikingly confirmatory of this view. Gross observes that the effect of cold air in the production of tetanus is well illustrated by an occurrence which took place after the battle of Ticonderoga, in 1758. The wounded were exposed the whole night after the action, in open boats upon Lake George, and the consequence was that nine of them died of this disease. During the war of 1812, most of the wounded by fire-arms on board the frigate Amazon, before Charleston, were attacked with tetanus on

the fourteenth day; the weather which had been warm and dry having changed suddenly to cold and wet.

Foreign bodies retained in a wound, and the compression of nerve filaments in a scar in the process of healing, may give rise to tetanus.

Retained and Unhealthy Discharges.—We come now to what I believe to be one of the most common and important exciting causes of tetanus, much more so than is generally believed. It will be noted that most of my cases had this one thing in common, and that is the retention in, or in contact with, the wound, of decomposing and irritating matter. Of course, I do not intend to intimate that this is the sole, or even the most frequent, cause of tetanus. The first proposition would certainly not be true, neither probably would the second; though I am by no means so sure of this.

I have not had time to make an extended examination of recorded cases of tetanus to find out how many, or in what proportion of them, such a condition obtained, but I think such an inquiry would be well worth while, and might shed great light on the question. I desire not to be misunderstood, as saying that this suggestion has anything new about it; nothing of the sort; it is given among the causes of tetanus in many works, and by various authors; but without any special emphasis and without having the importance attributed to it which I am convinced it merits. It is generally taken for granted that some injury or implication of nerve fiber should be found, or hypothesized, as the provoking cause of tetanus, but I do not see why this should be so any more than in the very analogous disease, hydrophobia. Surely, if in that disease the introduction, and possible localization, of a virus may produce all the wonderful reflex phenomena which characterize it, a similar influence may exist in tetanus, at least in a larger proportion of cases than hitherto supposed.

Predisposing Causes.—The predisposing causes are mental depression, climatic influences, such as excessive heat, sudden vicissitudes of weather, and especially a change from hot to cold and damp weather, an irritable or nervous temperament, physical exhaustion, disorder of the stomach or bowels, &c. Tetanus is also both endemic and epidemic. It is well known that certain places, sometimes very limited areas, are peculiarly subject to this disease; for instance, it is said that a certain district in the southern part of Long Island is so much so that persons meeting with injury there are frequently in the habit of leaving home until their wounds are healed. Some small inlands on the coast of Iceland are peculiarly infected by it, and other instances might be cited.

We have abundant evidence that tetanus has prevailed with unusual frequency in certain countries, and even in certain hospitals, during some years or seasons. To this fact, I think, rather than to any peculiarity in the wounds afflicted by the so-called toy-pistol, we may attribute the numerous

cases reported during the last summer; for all the cases noted in the secular press were not occasioned by this peculiar form of wound, if indeed there be anything peculiar about it, which I doubt.

The interval between the receipt of injury and the first symptoms of tetanus varies from a few hours to many days. There is one instance on record where they came on in fifteen minutes. Perhaps the average may be stated at about ten days, though there is some discrepancy in the statements on this point.

PATHOLOGY.—I may be excused for being very brief on this head, unless, indeed, I follow the example of some, who, the less they know, the more they say.

The post mortem appearances may be divided into those which are merely adventitious, and those which are essential, *perhaps*. The temperature in many cases does not rise much above the normal; in some, however, it does, and in these the increase has been observed to continue some time after death. Thus Wunderlich reports a case in which the thermometer marked 108° before death, 112.5° at the time of death, and 113.5° a short time subsequently. The rigor or stiffness generally continues after death. Certain appearances of morbid condition in the nerves at the seat of wound have been noticed in some cases; an ascending neuritis has not been demonstrated in any. Ecchymoses have been found in the muscles and viscera. Muscles, generally the recti abdominales, have been found ruptured from the violence of the spasms; bones have been fractured, and teeth broken off, from the same cause, but such events are very rare. The essential lesions of tetanus have very naturally been sought chiefly in the spinal cord and medulla oblongata, but it can scarcely be said that any invariable and characteristic lesion has been found as yet. One observer mentions finding plates of calcific deposit in the spinal meninges; this of course was merely accidental. Lockhart Clark and others have found hyperemia of the cord, and molecular disintegration of the grey columns, which in certain cases have been replaced by a colorless fluid: but these appearances, striking as they are, can hardly be said to be the essential causative lesions of tetanus. How can they have taken place in cases supervening a few hours after injury, or in the one that came on in fifteen minutes? The true pathology seems to be that of a morbid reflex excitability of the cord, determining the diseased motor manifestation, the real cause of which is unknown; and the changes in the structure of the cord are secondary, produced probably by alterations in its blood supply brought about by the convulsive manifestation. We may say that this explanation is unsatisfactory, but it is surely as good as those more intricate and elaborate ones which, after all, come to the same thing.

Death in tetanus results either from exhaustion or from spasms and fixation

of the diaphragm and other muscles of respiration, or more rarely from spasm of the glottis.

TREATMENT.—Is divided into local and general. Locally the wound, if not free enough to permit complete discharge, should be made so. Punctured wounds should be deeply and freely incised, foreign bodies searched for and removed. If any nerve filament is seen involved, or lying amidst purulent or sloughy deposits, it should be divided or exsected. Amputation is not generally advisable, but cases occur in which it is demanded. Where there is considerable destruction of tissue, so that the saving of the part is somewhat in doubt, the presence of tetanus may be allowed to solve the doubt in favor of amputation. Some brilliant results have been attained in this way.

If the wound have healed the scar should be exsected or deeply divided, and search made for foreign substances that may have healed in. The division of the principal nerve leading from the injured part, or the cutting off of a nerve supply from above by a V shaped incision, as recommended by Mr. Liston, may be tried in suitable cases. Nerve stretching has been pretty fairly tried in traumatic tetanus, with results which cannot on the whole be regarded as encouraging, but perhaps we must wait for further experience before deciding on this point.

After any necessary incisions, or amputation, and thorough cleansing of the wound, it should be dressed with some anodyne or antispasmodic application. Mr. Butcher, of Dublin, tried projecting the vapor of chloroform on to the wound, without success. Others have recommended aqueous solutions of opium, strong solutions of morphia, solutions of atropia, etc. I should prefer a solution of chloral, as being at once strongly anodyne and antiseptic. I saw, some years ago, an account in a medical journal of tetanus cured by filling the wound with powdered chloral. Whatever is used should not be applied cold.

GENERAL TREATMENT.—Under this head I have not much to recommend; but I sincerely believe that if the treatment I shall indicate were thoroughly carried out in every case, the terribly gloomy prognosis of this fell disease would be materially improved.

If the case is seen in the very beginning, I would premise other treatment with a thorough purgative, but if not, if even a day has elapsed, I would omit it, rather than subject the patient to the perturbation and movement it will occasion.

One of the most important, if not the most important, element of the treatment is absolute rest in the absolute sense of the word. This cannot be too strenuously insisted on, or too thoroughly carried out. The patient should be placed in a darkened room, out of the way of all currents of air, every noise near and distant that can be controlled should

be cut off, no one should come near him but his nurse and physician, and these should touch him as little as possible, hypodermic medication should be avoided if possible. His nourishment should consist solely of milk, with stimulants only when failure of the vital powers renders their use imperative. For medicine all you need is Calabar bean and chloral, with possibly an occasional hypodermic of morphia.

The Calabar bean should be begun with as soon as the disease manifests itself and pushed unflinchingly until an impression is made on the disease or some of its physiological effects give warning to stop. I have never seen these physiological effects, viz. : failure of heart and contracted pupil. Even should they appear the administration of stimulants will counteract them and enable us to continue the remedy in modified doses.

In addition, give chloral in doses of twenty or thirty grains, three or four times a day, or oftener if need be. I am quite sure that the two remedies together do better than either separately. The chloral is especially valuable as a means of producing sleep, and should be reserved as much as possible for night work. Care must be taken, if recovery or improvement takes place, not to expose the patient to any cause of relapse; confinement and absolute quiet should be kept up for sometime, and the medicines, especially the Calabar bean, should not be abruptly discontinued, but gradually left off.

This is all the treatment I have to recommend, and I think it worse than useless to enumerate the multitude of remedies that have been proposed and used in this affection. Their name is a legion, and their very number is their sufficient condemnation.

THE DIAGNOSIS OF INSANITY.

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Late Medical Superintendent of Dayton Asylum for the Insane.

A Synopsis of the author's lectures upon this subject, delivered as Professor of Nervous Disorders and Insanity in Starling and Columbus Medical Colleges.

In the application of our knowledge of disease to its diagnosis, there is no apparent discrepancy so great between the theoretical and practical as in the study of insanity. In this labor we realize the necessity of a complete analysis of the mind, a study of its departments and faculties—a thorough comprehension of the phenomena manifest in mental activity. Great pathological changes in the brain are consistent with mental integrity; on the other

hand, physical conditions may explain satisfactorily every symptom of insanity.

Anatomy and physiology give a knowledge of the structure of the brain and its functions, to a certain extent only, and beyond this we cannot proceed; for no one can declare what change is necessary in a cell of brain matter that a single thought may be made manifest. If this be true of normal conditions, what alteration of structure, or modification of function, will characterize the flitting of a cloud so thin as to obscure mental operations? If the nice distinctions and fine shades which define normal conditions are difficult to recognize, how much more so do they become when disease has still further obscured them.

The diagnosis of insanity, as a rule, is made with one of three objects in view: to determine what medical treatment is necessary, where no interference with the personal liberty of the party alleged to be insane is contemplated; to determine the degree of mental capacity with relation to civil acts, *i. e.*; power to contract, make wills, &c.; and the responsibility for crime and question of restraint. The question of capacity and responsibility is rather one of a consideration of the consequences or effects of mental disease, and it may be said is one with which the medical man in many cases has nothing to do; yet in the diagnosis of any given case the ultimate object to be attained cannot be ignored. Insanity, as recognized by medical men, and legal insanity, are widely different conditions. Legal insanity is a consideration of the consequences of mental disease—capacity and responsibility, there being no insanity known to the law except that which incapacitates and renders irresponsible; and these are but different degrees of the same condition; in one, the law holds responsible for crime where it would declare void, or voidable, a contract made, while with the other responsibility for actions is alone the question at issue.

THE FORMS OF INSANITY.—*Classification.*—Without some system of classifying disordered mental phenomena, it would be impossible for a medical man to give an intelligent opinion in a given case. In courts where crime is alleged, these distinctions may not be inquired into; it being sufficient to determine if the party is insane, or in other words, irresponsible. Various systems of classification have been presented. That of Esquirol has been accepted throughout the world and is most commonly recognized. Some have based their classification upon the causes which determine insanity, as Skae, which extends the list indefinitely. Others have classified according to division of the mind into departments. This, as I have taught the subject, would give

us :

1.—6.—3.

DEPARTMENTS.

Instinct.
Intellect.
Sensibilities.
The will.

FORM OF INSANITY.

Instinctive insanity.
Intellectual delusion.
Pathetic, or emotional.
Volitional insanity.

The more commonly accepted classification is :

1. Idiocy. 2. Imbecility. 3. Monomania. 4. Mania. 5. Melancholia. 6. Dementia. 7. General Paralysis. We will discuss the diagnosis of the special forms of insanity after we have considered those general questions that first engage the attention in all cases.

HOW TO EXAMINE A PATIENT SUSPECTED OF INSANITY.—After having obtained all possible information concerning the patient's history and antecedents, his habits, mode of life, the alleged evidences of insanity, both mental and physical—such as previous ill health, delusion, &c.,—we will be prepared to be brought into more intimate relations with him. In considering the special forms of insanity I will point out what should be sought in each.

I have referred to delusions. We hear the terms illusion, hallucination and delusion, frequently used in relation to these subjects.

An illusion is a false conception of a real object. Thus, when one rides on the cars, the land seems to move rapidly backwards. He is able to correct this in his mind by the exercise of reason. This has an external and real object for its production. This form of disordered perception is common with insane. Many of them see in each individual they meet an old acquaintance and designate him by the name of some one known to them in their former days. There are many insane who will have a name for every one. This often explains their likes and dislikes, for, if the person supposed to be present is one they regard kindly, they manifest it in their conduct, while, if the contrary, they show their dislike at times in language not polite. This disordered condition also shows itself in all the affairs of life, and not only vision, but all the senses are involved. The food has unreal tastes, disgusting objects became extremely agreeable to them, or, on the contrary, the most tempting dishes only excite disgust. In all these cases there is a real object, but a false perception of its character.

An hallucination differs in having no external exciting cause, or object, for its production, but is the result of disorder of brain or organs of sense. It may result from irritation within the body at remote points, yet this usually is more in its nature an illusion, as when inflammation of the bowels gives rise to the idea that a regiment of soldiers is confined within the abdomen. Illustrations of hallucinations may be found in those cases where sounds are heard, as of music or voices, as of God commanding some act, or that of friends; smells and tastes, sensations of touch, and false perceptions of real sensations. I prefer to limit all false perceptions of external objects to this

signification I have given of illusion, and those arising within the body to hallucination, although in this last there may be a real sensation which is misapprehended.

A delusion is the belief in the reality of an illusion or hallucination. In a sane mind there is power to reason against and correct these false perceptions. When they produce such overpowering influence that they become beliefs, and are motives for action, they constitute insanity. The existence of an illusion or hallucination is not conclusive evidence of insanity. It is one of the objects encountered upon entering the border of the land. Many great men in all the occupations of life have experienced these strange phenomena, but they have not manifested their influence upon their lives except in a few instances, and then no one would declare that there was full responsibility for all acts performed. Napoleon had his "star of destiny." Mahomet saw visions. Socrates had his familiar spirit which attended him. Pascal sought freedom from annoyance by wearing an amulet to protect him from the visit of demons. Cruden, who wrote the "Concordance of the Bible," was three times confined in an asylum, and is said to have written his book while insane. Rousseau, Cardan, Descartes, Tasso, Johnson, Swedenborg, and many others, may be mentioned, who were the victims of illusions, hallucinations and strange phenomena; yet who would regard them insane? In searching for evidence of the existence of delusions, we must be on our guard not to mistake an illusion, or hallucination, for the more important mental disturbance. These perceptions belong to the physical functions until the brain fail to resist their influence. When they become beliefs they appear in consciousness as realities, and the mind is unable to accept evidence against them. I have presented this matter here as it belongs to all forms of insanity. Even the victim of general paralysis believes himself a great man, and sees gold and precious stones in the meanest objects that surround him, where exaltation characterizes the form of his mental disturbance.

HEREDITY.—Reference has been made to the history of the patient. One of the first subjects to be investigated will probably be what is his inheritance from ancestors, bequeathed in vital and mental force. Insanity, as such, is not transmitted, but a condition of organization which, under the influence of determining causes, may result in mental disease. Insanity is but one of the forms of nervous disorder, which hereditary conditions may assume. Epilepsy, chorea, hysteria, paralysis, chronic disease of the digestive apparatus, may be each a form into which some unstable nerve organization of ancestors has been metamorphosed. That which may appear with one generation may assume another form with those who inherit it. Hereditary influence when present is of importance, but if absent it is not negative evidence. Its frequency has been estimated with widely different results. So great is the discrepancy that some are inclined to ignore

all statements. This is due to the facts made the basis of consideration. Thus one confines his estimates exclusively to cases of insanity; another includes other forms of nervous disorder; while a third embraces other hereditary diseases. To understand what any writer intends to represent by his figures we must know what they are based upon.

Leading authors present these figures as follows: Esquirol gives as an estimate 45 per cent.; Parchappe, 15; Guislain, 25; Burrows, in $\frac{1}{4}$ of cases; Bergman, $\frac{1}{4}$; Jacobs, $\frac{1}{4}$; Moreau, $\frac{1}{8}$; Hagen, $\frac{1}{3}$; Fleming, $\frac{1}{4}$; Dameron, Dagonet, Bini, at Florence, each $\frac{1}{4}$; Martini, $\frac{1}{8}$; Colditz $\frac{1}{4}$; in 8,272 cases at Bicetre and Saltpetriere, $\frac{1}{11}$; Lautard, $\frac{1}{8}$; Briere, $\frac{1}{2}$; Webster, at Bedlam, 1798 cases, $\frac{1}{3}$; Skae, $\frac{2}{3}$; Jarvis, in 1850, in 44,717 men, $\frac{1}{8}$; in 43,091 females, $\frac{1}{8}$; Bloomingdale, N. Y., 1849, in 1841 cases, $\frac{1}{6}$. Thus it is seen the estimate varies from almost nothing to nine-tenths of the cases, according to the elements considered. Authors have also given much attention to the influence of sex in hereditary transmission. Esquirol found in a large number of cases that insanity was inherited from the mother in one-third more cases than from the father. Hereditary influence apparently follows no regular course, yet obeys the laws of nature, and if understood is observed to be governed by definite laws. It is influenced by marriage relations. Thus one parent from a stock of tainted nerve elements may be rendered powerless in transmission by connection with a healthy female in marriage, the mother's influence predominating. Again, children born before the manifestation of disease may be healthy, while those born after may inherit it; and further, those born during the interval of health may not inherit the disease. The majority of insane persons, who are not chronic, incurable cases, are not continuous in form but have lucid intervals. Their disease proceeds by "attacks," with intervals of mental soundness of greater or less duration. This may to some extent explain the fact that all the children born after insanity has been manifested do not inherit it. One may be an idiot or imbecile, another an epileptic; one a bright intellect while another become insane. Thus the hereditary influence manifests itself. We cannot say why one should assume one form and another some other form, any more than why one child should resemble the father and another the mother.

Hereditary insanity is characterized, says Morel, who has given this subject more attention than any other writer of this age, by an explosion more sudden, more instantaneous delirium under the influence of the least determining cause, periods of remission are better marked, the cessation of phenomena is sudden. In some cases the ideas are fixed with a tenacity upon the same object that does not characterize other forms of insanity. In no other form do we observe the tendency to systemization of delirious ideas, and the manifestation of bad instinctive acts with apparent preservation of the intellec-

tual faculties, to the same degree. *Manie, raisonnée, folie morale, folie sans délire, monomanies* find in hereditary insanity the greatest number of candidates. We observe with these patients special aptitudes above all for the arts of imagination. The predominance of this or that artistic disposition, of some peculiar intellectual faculty in the midst of the general disorder of ideas and sensibilities, is a remarkable phenomenon that we find in the varieties the most degenerate of hereditary insanity, as for example imbecility. (*Morel, Traité des maladies mentales*, p. 620.)

We must not infer from this that we can go through the wards of an asylum and pick out all the cases of hereditary insanity by peculiar characteristics. Cases of mania, melancholia, dementia, &c., while they may or may not exhibit evidence of insane temperament, show the same symptoms when hereditary that are manifest when not; as delirium, delusions, illusions and hallucinations, or disturbance of nerve functions, as hyperesthesia, anesthesia, &c. In the line of descent of hereditary cases will be found persons with irritable temper, eccentric ways, dipsomaniacs, and a variety of unfortunates. Lucas, in his *Traité de l'Herédité*, Paris, 1874, presents a number of cases where abuse of family, paroxysms of rage, frutality and murder, were hereditary. Many cases are recorded in the *Gazette des tribunaux*, Paris. Yet these individuals have been held responsible for their crimes. Eccentricity, brutality, tendency to theft, and other crimes are not insanity if the individual has mental power sufficient to understand his duties, and power under ordinary circumstances to regulate his actions. An eccentric course of life, want of moral force, and contempt for the rights of others, may characterize many cases of hereditary, instinctive disorder, yet it is far short of insanity. That it has been uniform in life, with no change of character, habits or mode of thought, is evidence that it falls not within the boundary line of insanity. A change of character and of habits, with an individual who has sustained a good reputation, who has hereditary taint, would entitle him to the suspicion of insanity.

LITHIASIS, OR GRAVEL.

BY T. M. CARROLL, M. D., SPRINGFIELD, OHIO.

A Paper Read before the Clark County Medical Society, Nov. 10, 1881.

Among the many diseases now claiming the special attention of the physician, those of the urinary organs are assuming marked importance. The increasing proportion of deaths from Bright's disease among lager beer drinkers is a fact well known to students of clinical medicine.

Vague ideas prevail among the laity, and are shared in no small measure by a portion of the profession, regarding the nature, causes, and symptomatology of urinary diseases. It is not my intention in this paper to discuss any of the seven varieties of Bright's disease, but that far more frequent and less fatal one—lithiasis, or gravel.

In certain abnormal conditions of the system, various substances are precipitated from the urine. When these substances are precipitated after the urine has cooled, they are called sediments. If they are precipitated while the urine is yet in the bladder, ureters, or kidneys, the precipitate is called gravel, or sand. If the precipitated substances congregate and lodge in some portion of the urinary organs, the concretion receives the name of calculus, or stone. These deposits are divided by recent as well as old writers into three principal varieties—the lithic, phosphatic, and oxalic. The lithic, or uric acid, deposit is the most common, and is an organized animal substance, containing much nitrogen. It is held in perfect solution in normal urine, combined with ammonia. When free acid exists abnormally in the urine, it is then separated from its ammonia and precipitated in a crystalline form, of a reddish color, and is described by writers as red sand, or gravel; if they congregate, then we have a calculus, or stone. There are three forms of these amorphous stone-forming sediments which do not crystallize. They are frequently met in practice as complications, receiving little attention from the busy practitioner. They are of great importance in their bearing upon diagnosis and treatment.

The first variety of amorphous sediment consists of a yellowish substance deposited on the sides and bottom of the vessel containing the urine. This, the most common form of Lithiasis, appears whenever the digestive system is out of order. It may supervene upon a late oyster supper, with cake, coffee, champagne, etc., or as an accompaniment of dyspepsia. The second variety consists of the lateritious, or brick dust, sediment. It is peculiar, characteristic, and denotes a graver condition of the system. It is met in practice in cases of gout, rheumatism, the sweating stages of severe intermitting and remitting fevers, and in the adynamic forms of continued fevers. The third variety consists of a pink sediment, less common and more ominous than either of the others. It is indicative, when persistent, of an inflammatory condition of the blood. It may exist for months without attracting the attention of the patient. It may appear transiently, as the effect of a full meal. The patient may experience a sense of burning heat in different portions of the body—the face, hands, or feet. Finally, the loss of appetite, sleep, weight, and strength, with increasing irritability of temper, indicate the existence of some form of organic disease of the liver, lungs, or kidneys. This condition is daily met in practice, in cases of aggravated dyspepsia, chronic intermitting and hectic fevers, and in exhaustive suppu-

tion. When the physician ignores the urine and its sediments, with the practical indications for rational treatment which they present, he does so with positive detriment to his patient and injury to himself. The urine from which these three varieties of reddish amorphous sediments are formed, is usually scanty, of a bright or dark coppery color, highly acid, giving a deep red shade to litmus paper. The precipitation of these sediments is attributed to lactic acid, which usually passes off through the emunctories of the skin, but is determined to the urine by imperfect food assimilation or arrested perspiration.

The phosphatic sediments, known as white sand, or gravel, consist principally of the triple phosphate of ammonia and magnesia. The urine from which they are precipitated is excessively alkaline, pale, copious, of low specific gravity, turbid, and while cooling deposits the white sand. Occasionally this white sand is so abundant that it is deposited while the urine is yet in the bladder. In such cases the last portion of the issuing stream in micturition looks milky, and thus attracts the attention of the patient.

In this connection a fact of great practical importance may be mentioned: that the predisposition to the formation of the triple phosphates accompanies a greatly debilitated condition of the system—requiring tonic regimen and treatment for its amelioration.

In the oxalic acid condition there is a strong tendency to deposit the oxalate of lime, of which the mulberry calculus is principally formed. The urine in this condition differs materially in its sensible qualities from each of its preceding varieties. It is bright, clear, and free from sediment. The oxalate of lime is of a blackish, dark-green color.

These three varieties of gravel are never present together. In the pulverulent state, however, the lithic and phosphatic often occur in union with each other. The deposition of lithic or uric acid is the primary process in the formation of urinary calculi. The phosphatic and oxalic formations are the result of the gradual transition from the lithic to the phosphatic or oxalic conditions. The abnormal conditions of the system in which these substances are secreted and deposited, have been distinguished by medical writers as peculiar diatheses. These dyscrasie are usually classed under four heads: the lithic acid, phosphatic, oxalate of lime, and cystic oxide diathesis. These diatheses are frequently inherited, but often acquired. The older physicians have recorded that children born of gouty, rheumatic, dyspeptic, scrofulous, or phthisical parents, were exceedingly liable to lithic deposits in their urine. Such children are harassed with a frequent desire to pass urine, which is small in amount and is accompanied with pain or uneasiness during and after its passage. The causes which favor the excessive secretion of uric acid and its cognates are legion, and may be summed up in a single sentence: The violation of the laws of health by the patient,

his progenitors, or both. The diatheses may be acquired by indolence, sedentary habits, excess of animal food, alcoholic and malt beverages, excessive physical or mental exertion, long continued watching, corroding business cares, prolonged grief, or any persistent course of life which continually wastes the vital energies faster than they are restored.

TREATMENT.—Case in practice: W. B., heir of dyspeptic parents, both living; male; American; age, twenty-five years; medium height, heavy built, dark hair and eyes; bilious temperament; unmarried; moderate in the use of tobacco; total abstainer as to ale, wine, and beer; irregular in dining habits; dyspeptic, fastidious as to dishes; phlegmatic; averse to active physical or mental exertion. In the spring of 1880, while on a visit to Columbus, he contracted a well defined case of specific urethritis. On the fourth day of the malady he applied to a leading physician for treatment, which was continued several months without effecting a cure. The case became chronic, the blennorrhea increasing, the subacute inflammation advancing and affecting the deeper portions of the urethra, the prostate and neck of the bladder. A second physician met with better success, and attempted to complete the cure by the introduction of flexible longies. The treatment was suspended. The patient changed residence and business, and in August, 1880, came under the writer's care, giving his history substantially as related. He desired treatment for the urethral discharge, which he considered as the direct cause of all his suffering, having never been seriously ill prior to his visit to Columbus. A careful examination revealed a slight enlargement of the right lobe of the liver, pains in the region of the same with slight tenderness on pressure, yellowness of the entire skin and conjunctiva, with sticking together of the eyelids in the morning, anorexia, nausea, collections of phlegm in the pharynx and bronchi, drowsiness through the day, disturbed and unsatisfactory sleep at night, frequent desire to micturate, urine acid, high colored, scanty, voided with difficulty, necessitating the employment of the bougie to keep the urethra open. The bowels were inactive, sluggish, moving only when urged by an efficient cathartic; the discharge from the urethra persistent, though not abundant.

Treatment was instituted as follows: one or two compound cathartic pills every second night for one week; nux vomica, gentian, or columbo, before each meal; daily bath with friction by towel and brush, brisk walk each morning, passage of nickel plated steel sound every second day, large as the condition of the urethra will admit. Second week: Pill composed of podophyllin, leptandrin, comp. colocynth, ipecac, ext. hyoscyamus, equal parts, two grain pills; one or two at night, as may be needed to keep the bowels solvent and act gently on the liver. Third week: Continued the pills and gave dilute nitromuriatic acid, well diluted with water, 5 to 10 drops after each meal, and one-half to one drachm of Huxham's tincture before each

meal. At the end of third week all the symptoms were improved, appetite good, bowels regular, yellowness of skin and conjunctiva scarcely perceptible, urine clear, slightly acid, specific gravity 1020. Continued same treatment another week, and discharged the patient cured, excepting the urethral trouble, which was much better, though still present.

From Feb. 7 to 24, 1881, the patient passed through a severe remitting fever, during which the lithates were present in great abundance. Patient left the city in March, 1881, and was under the care of a competent physician until May 2d, at which time he returned bearing the sample of renal calculus which was passed at 11 o'clock that morning. Examination showed the presence of similar pathological conditions to those of August, 1880, with the solid proof of the lithic acid diathesis. Contrary to the behavior of renal calculi as described by authors, these, though many in number and passed at different times, caused no suffering at the time of their passage. The urethral trouble still continuing the patient was put upon alkaline treatment; bicarbonate of potash five to fifteen grains four times a day, to correct the excessive acidity of the urine and prevent the formation of calculi: bicarbonate of soda, acetate of potash, nitrate of potash, alternately with each other, flax seed tea and soft drinking water *ad libitum*, daily testing the urine with litmus paper, and withholding the remedies whenever indicated by the alkalinity of the urine. The bitter tonics, gentian, columbo, nux vomica, calisaya, hydrastis, were given to sustain the tone of the system and strengthen the stomach against the pathogenic action of the alkalies. On June 22d the last calculus was passed, when the alkaline treatment was discontinued. The case continued to improve steadily under the use of citrate of iron and strychnia, and remains well at this date, with the exception of the urethral difficulty, which, though slight, persists, for the permanent cure of which steel bougies of increasing size are being employed.

During the entire treatment great care was taken in the selection of food with reference to quality and quantity, aiming to supply the system with all the nutritious food it was capable of assimilating.

SOME THOUGHTS ON PROGNOSIS, PATHOLOGY AND TREATMENT OF TYPHOID FEVER FROM A CLINICAL STANDPOINT.

BY S. C. DUMM, M. D., CONSTANTIA, OHIO.

There has been quite an epidemic of typhoid fever throughout Ohio this fall, attended with an unusual fatality. As I have had a number of cases in my practice I propose to mention a few facts that have been impressed upon my mind while attending them.

As a rule typhoid patients are taken down gradually, this prodromic period lasting from one to three weeks. The first symptoms that attract attention are headache, roaring in the head resembling the effects of quinia, backache, loss of appetite, epistaxis, slight diarrhea with ochre-colored discharges, nausea and sometimes vomiting. The diarrhea and epistaxis are by no means slight in all cases. Epistaxis may take place to an alarming extent. In one of my cases the hemorrhage came on two different days and continued the second day for eight hours, when I was sent for, and to arrest it was obliged to plug the nares.

The bowels will act in some malignant cases fifteen or twenty times in twenty-four hours, greatly reducing the chances of recovery.

Some cases are taken suddenly with a chill and they may have a slight chill for one or two succeeding days. These are generally attended with catarrhal inflammation of the stomach, and often this condition extends into and through the small intestines. This seems to be at times, in some cases, all the pathological process that takes place. The catarrhal condition remains throughout. In such cases the difficulty attending the administration of food is great, as there is more or less nausea with great disgust for food. It is a notable fact that in these cases the pulse and temperature do not run so high, and they generally all recover. The pulse may be but little accelerated, or may be even below health. The restraining influence of a catarrhal stomach over the heart's action is similar to that often noticed in catarrhal jaundice.

The fever in this disease is not continuous, and in the first week it is not unfrequently taken for remittent or intermittent fever. In all cases, except where there is the catarrhal condition before mentioned, there is an evening rise and a morning fall of fever-

Where there is profuse epistaxis or hypercatharsis, or both, the case is generally very malignant and is apt to prove fatal in a few days. I suppose the cause of these two conditions is to be found in the malignancy of the poison, producing vaso-motor paralysis, as there is generally a weak frequent pulse, with a dusky appearance of the skin.

In some cases the tongue is heavily coated at first. This coating peels off during the second or third week, leaving a dry, red, glazed condition. In other cases the coating remains until the beginning of convalescence. In those cases attended with catarrh there is often no diarrhea. In some cases there is persistent constipation, and cathartics will not produce excessive action, as when ulceration exists.

The treatment of typhoid fever has undergone a wonderful change in the past few years, attended with a corresponding decrease of the death rate. Taking the views of medical men the world over there is no settled treatment as yet. The only thing that the profession are united upon is the necessity

of a regular diet suited to each individual case, and given according to the ability to digest. The practitioner who is gifted with that instinctive knowledge as to what a patient wants, and how much he will bear, will be the most successful.

The great cause of fatality in typhoid fever is a continued high temperature, producing a rapid waste of tissue attended with great nervous and muscular debility, cutting short life before the poison can possibly be eliminated. Hence, the desideratum is to lower the temperature and thus prevent the rapid waste of tissue and prolong life until the disease has exhausted itself.

One of the most ready methods of accomplishing this is by means of wet blankets or sheets, or the cold bath. In country practice the former method is probably the best. The patient should be kept wrapped in the sheets or in the bath until a decided reduction of the temperature takes place, as shown by the thermometer. This will be repeated as often as there is sufficient rise to justify its use.

The German and many American physicians recommend anti-pyretic doses of quinine. These are given according to the effects on each case, the dose ranging from 20 to 60 grs., repeated in two hours, if necessary, until the temperature is reduced. This dose generally suffices for twenty-four hours.

This treatment was tried in the Philadelphia hospitals and proved a failure. Its irritant effects on the gastric mucous membrane counter-balanced the reduction of temperature. In many cases it failed to reduce the temperature but in small doses of from ten to fifteen grains during the day it had a decided effect. My experience is that two or three grains every three hours continued throughout the disease acts as a tonic to the muscular and nervous systems, and tends to check febrile action, neutralizing the poison in the blood. Where there is much gastric catarrh the quinia may be given in sugar-coated pills. My experience leads me to think that they produce less irritation than the powder or solution, and I have known patients to take them with success and without discomfort, when the powder or solution would immediately be rejected.

The Germans claim for mercury and iodine specific properties. Bartholow says that if statistics are to be relied upon, calomel in large doses during the first week favorably modifies the disease. Ten grains every other day is recommended. The effect is to lower the temperature and to diminish the severity and shorten the duration of the disease. This might possibly do for a case of the catarrhal form attended with costiveness. In such cases I have seen it do good, but to give it in such doses where the mucous membrane is congested or ulcerated, would be to sign the death warrant of the patient; such a diarrhea would be set up as would exhaust the patient. The iodine treatment consists in giving from three to five drops three times a day of the

tincture, in water. This is to be continued during the first two weeks. A combination of iodine and carbolic acid is recommended ; two parts of tincture of iodine to one of carbolic acid, of which the dose is from one to three drops.

Nitrate of silver, sulphate of copper, arsenic, and turpentine have their advocates. I have had no experience with either, with the exception of turpentine, from which I have never received one particle of benefit. It always increased the dryness and redness of the tongue, and produced more or less gastric irritation. In cases attended with gastric catarrh it was a decided damage.

Book-writers are so in the habit of producing old quotations in order to fill in that they will often chime in when their experience or observation would teach them differently. I think the time is near at hand that turpentine will be condemned, as a remedy in typhoid fever, and laid aside as useless. The idea of applying turpentine to an ulcerated surface in order to heal it is absurd. No one would even think of giving it a passing notice as an application to ulcers on the surface.

Sir William Jenner says that he has never seen a case of typhoid fever cut short by any remedy. We have a self-limited disease, of a specific nature, without any specific remedy, and the duty of the physician is to act as a pilot, guiding his patient and watching and meeting every indication that may arise. The treatment I have used with satisfaction in the catarrhal and ulcerated condition consists in the administration of sub-nitrate of bismuth, combined with pepsin. If there is too much acidity of the stomach, creta preparata may be added. With the above I give small doses of morphia to soothe the mucous membrane and quiet peristaltic action, thus putting the bowels in the best possible condition for the ulcers to heal. Under the morphia treatment the danger of perforation is reduced to a minimum. The patient rests quietly, and the stomach is soothed so that there is no distress after taking nourishment.

There is no such a condition as morphia or opium idiosyncrasy in my practice. This is another of those quotations that has been handed down from time immemorial. In cases where morphia has such terribly exciting effects in the doses recommended by authors, it will be found that such persons require very small doses. If it is given in doses of one-sixteenth to one-twentieth of a grain the effects will be wonderfully pleasing and satisfactory. I have often been warned by patients not to give morphia, as their former physician had told them that they could not take it. But by giving it in doses almost absurdly small I have secured the desired effect.

The morphia, bismuth, and pepsin treatment will generally control the diarrhea. In cases of decided constipation the bowels should be kept in a solvent state by repeated enemas. Cathartics should not be given, espec-

ially if there is much tympanites, indicating ulceration. They would have a tendency to increase the ulceration, or produce perforation. In cases where there is a decided indication in the latter stage for a laxative, castor oil or rhubarb may be given. I think rhubarb is better on account of its tonic and astringent effects.

In cases attended with much tympanites relief can be obtained by administering charcoal, or an enema containing a certain amount of turpentine.

In cases of hæmorrhage of the bowels the patient should be kept in the recumbent position, should not be allowed to make any effort to sit on the chamber, nor be raised up to pass his urine, which should be drawn with a catheter. Morphia internally, or starch and laudanum enema, may be given, along with acetate of lead, in doses of from ten to fifteen grains every three hours until the hæmorrhage is checked. The subcutaneous injection of ergotine is also a useful remedy.

Stimulants are highly recommended, especially in the latter stages, or where there is evidence of the failure of the heart's action. I must confess that I have never received much benefit from their use, especially where there was much gastric irritation. In such cases they increase the fever and delirium, and produce a dry, parched tongue; yet they are recommended by authority, and had probably better be used. I never, in an extensive country practice of nearly ten years, have seen the indications for stimulants that some practitioners have; and I have not the faith in them that a great many have. I think in the past year that I have not prescribed one quart of liquor. If we cannot supply the needs of the body by a well regulated diet, suited to each individual case, our treatment will generally prove a failure.

We are apt to get in a hurry in these lingering cases. We want to hurry them up, and we pour down stimulants and strong medicines, and thus frequently hurry our patient into the grave.

In cases attended with profuse perspiration drop doses of the tincture of belladonna may be given every hour until it is controlled.

The acids are highly extolled in typhoid fever, but when the stomach is irritated they often do harm by producing gastric distress, with a dry, red tongue. If given they should be prescribed in small doses well diluted.

Pure water may be freely given, unless it produces nausea, or gastric distress, when skimmed milk may be substituted. This brings us to the important subject of diet. Owing to the catarrhal condition of the digestive organs, food should be given in a liquid state. No one of any experience would think of giving solid food. Of the different articles of diet milk stands at the head of the list. We should be careful to give it in small quantities and often, until we find out just how much such patient will digest. The indiscriminate use of milk has often been followed by serious consequences. Milk contains a large amount of solid animal matter. The

casein of the milk has to pass into solid form before it can be digested. Curds often form in the stomach, producing a considerable amount of constitutional disturbance. I have seen them produce restlessness and increase in the temperature, which would pass off soon after vomiting took place. It is said that one pint of milk contains as much solid animal food as a full sized mutton chop. Two quarts of milk in twenty-four hours would, therefore, be an unreasonable amount to administer to a typhoid patient. It is a fact that more patients are injured in typhoid fever by over feeding than in any other disease. In one case which I attended this fall an unusually small amount was taken. The patient lived on from one to two small teacups of milk a day. When this amount was increased her stomach invariably rebelled against it, and it would be followed by a rise of temperature, uneasiness, and vomiting. Where milk with the cream disagrees, skimmed milk may be given, which may be made one fourth lime water if the stomach becomes acid.

Beef essence, so highly extolled by some, has not proved satisfactory to me. A good mixture is to break an egg into a tumbler of milk and sweeten according to the taste of the patient, of which a tablespoonful may be given every hour. We should be careful to not overload the stomach with whatever is given, and our success in the management, as before remarked, will be according to our knowledge of how much each patient will bear.

SOCIETY PROCEEDINGS.

THE THIRD QUARTERLY SESSION OF THE NORTH CENTRAL OHIO MEDICAL SOCIETY.

The Society met at Mansfield, Ohio, September 28, 1881, Dr. J. P. Cawan, of Ashland, in the Chair.

The matter of the new constitution, which at the last meeting was made the special order, was laid on the table indefinitely by a motion of Dr. X. C. Scott, of Cleveland. The following resolutions were offered by Dr. Reed, and after some discussion laid upon the table until the next meeting:

WHEREAS, It is becoming a practice in many of our counties and townships for the County Infirmary Directors and the Township Trustees, to sell out to the lowest medical bidder, the pauper practice of the counties and townships for a stipulated time, and

Whereas, In many and nearly all instances it is contracted for by the year for a consideration much below its real value, and in many cases this bartering is done by regular practitioners, and

Whereas, Our code of ethics in Art. I, Sec. III, "of the duties of physicians, &c," says, "It is derogatory to the dignity of the profession to publicly offer advice and medicine to the poor," and in Art. V, Sec. IX, of the same, "A wealthy physician should not give advice gratis to the affluent, because his doing so is an injury to his professional brethren. The office of a physician can never be supported as an exclusively beneficent one; and is defrauding, in some degree, the common funds for its support, when fees are dispensed with which might justly be claimed," and

Whereas, The practice of selling out an unknown amount of pauper practice to the lowest bidder for a definite time, and the contracting for the same by any regular practitioner, is not only unprofessional but degrading to the general welfare and interest of the regular profession; therefore, be it

Resolved, That any member of this society who shall agree for the same at any other than the regular rates for a definite amount of service as adopted by the county or district society in which he lives, and which is in harmony with the general usage in said county or district society in which he resides, shall be deemed guilty of unprofessional conduct and shall be considered ineligible to membership.

Resolved, That a committee of three be appointed by the chair to prepare a suitable amendment to the constitution of this society, embracing the above, and present it to the society at this meeting, preparatory to its adoption at the next regular session of this association.

In pursuance of a motion of Dr. Sykes, a committee of five was appointed to prepare a fee bill and report at the next meeting.

Quite a number of interesting clinical cases were presented by physicians from different parts of the State, and committees appointed to examine and report.

The committee appointed at the last meeting to draft resolutions in regard to the advertising of patent medicines in religious journals, was called upon, and presented the following resolutions, which were adopted:

Whereas, The regular medical profession recognize the decidedly injurious effect of secret nostrums and quack medicines upon society.

Whereas, The advertising of said nostrums is a prevalent evil in religious journals—loudly endorsed by the members of the clerical profession—thus lending strength to a lie, and sowing the seeds of deception and death.

Whereas, We recognize the injustice done Christianity by said advertisements and endorsements, engendering in the minds of medical men a disgust for religion and its teachings; therefore, be it

Resolved, That we, the members of the North Central Ohio Medical Society, denounce said practice as beneath the dignity of so high a calling.

Resolved, That Christian editors who permit the columns of their journals to be used for money-making schemes, thus disseminating falsehood and actually increasing the mortality of their patrons on account of the confidence placed in said journals by their readers, should be discouraged by every lover of truth.

Resolved, That in the presentation of these resolutions to the Medical Fraternity we thereby request the earnest co-operation in the suppression of said advertisements.

W. C. KENNEDY, M. D., }
W. H. SYKES, M. D., } Committee.
P. H. CLARK, M. D., }

The following resolutions were offered on the death of President Garfield :

Whereas, It has pleased an overruling Providence to permit the foul and traitorous hand of a bloodthirsty assassin to strike down in the prime of manhood and National usefulness our beloved citizen and honored and esteemed President, James A. Garfield; be it

Resolved, That we extend our heartfelt sympathies to his bereaved and agonizing wife, his aged mother and fatherless children.

Resolved, That we as a Medical Body not only condemn the general course pursued by Dr. D. W. Bliss in his daily bulletins, but most severely condemn the uncalled for, ungentlemanly, and extremely unprofessional conduct of Dr. Bliss toward our late honored fellow citizen, Dr. J. P. Pomerine, of Millersburgh, Ohio, and also of Dr. Baxter, of Washington, D. C., as being beneath the dignity of a professional gentleman.

Resolved, That a copy of these resolutions be preserved by this society, and that one be sent to Mrs. Garfield, Mrs. Pomerine, Dr. Baxter, and Dr. D. W. Bliss.
R. H. REED, M. D.

A lengthy discussion was called out on the above, which were construed in such a way as to make them appear to reflect on Professors Agnew and Hamilton, and for that reason they were amended by striking out all that referred to Dr. Bliss; not that his course and conduct were not condemned, but chiefly in view of the former, as the society held in the highest esteem the above professors and their services in the case.

Dr. J. H. Stoll, of Ashland, read a very interesting paper on "The Climate of Colorado on Consumptives." The paper was an excellent one, well prepared from the author's own notes and experience in that State. He denounced the climate as not being as represented, but, on the other hand, rather against than favorable to the best interests of that class of patients.

Prof. D. B. Smith, of Cleveland, the appointed lecturer, delivered a very interesting extemporaneous talk of nearly an hour and a half on "Injuries of the Eye," which was of a very practical nature, containing many beneficial hints in the treatment of the injuries so common to these organs.

For want of time it was decided to carry the remainder of the papers over to the next meeting, and listen to a poem by Dr. R. F. Work, of Ontario, on "The Anglo-Saxon," which, in spite of its length, was exceedingly interesting and greatly appreciated by all.

A volunteer poem was read by Dr. W. S. Battles, of Shreve, on the death of President Garfield.

PROGRAM FOR DECEMBER 28TH, 1881.

Lecturer.—Prof. Leander Firestone, Wooster.

Alternate Lecturer.—John Campbell, M. D., Galion.

Essayist.—J. W. Craig, M. D., Mansfield.

Alternate Essayist.—T. W. Armentrout, M. D., Bellville.

Written Reports of Cases.—H. R. Kelly, Galion; W. S. Mecklam, Lucas; Geo. Mitchell, Mansfield; S. N. Alban, Perrysville; H. H. Smith, Lexington; C. E. Sapp, Gambier; J. P. Latimer, Newark; J. P. Henderson, Newville; D. S. Sampsel, Ashland.

Topic for Discussion.—“Intra-Uterine Medication” —To be opened at 11 A. M., by I. A. Myers, of Shelby.

Original Poem.—by W. S. Battles, M. D., Shreve.

The attendance was the best of any meeting since the organization of the Society, and, judging from the interest manifested, the Society gives promise of a prosperous future.

The Society adjourned to meet in the Central Opera House, at Galion, Dec. 28, 1881.

J. P. CAWAN, M. D., President.

R. HARVEY REED, M. D., Sec'y.

CLARK COUNTY MEDICAL SOCIETY.

The Clark County Medical Society held its regular November session at Agricultural Hall, on Limestone Street, Springfield, Thursday afternoon, Nov. 10th, commencing at 2 o'clock; Dr. T. M. Carroll, President, in the chair. Present, Drs. Bryant, Carroll, Hall, Kay, McLaughlin, Morrison Nelson, Ormsbee, Rodgers, Spinning, Swayne, Totton, Wright and Welch.

Drs. M. F. Welch and W. W. Hall were received into the Society as members.

Dr. A. C. McLaughlin, who had not been able to meet with the Society for a number of months on account of ill health, being present, received the congratulations of the Society upon the recovery of his health, and was called upon for remarks relative to his own case. Dr. M. having answered this request, closed his course of observations by expressing his continued good will to the Society, and spoke of the extreme pleasure which it always afforded him to meet with his medical brethren in conference upon matters pertaining to their noble profession.

Dr. Totten, who at the time was in the chair, responded to Dr. McLaughlin's remarks, in a neat and appropriate speech, expressive of the high appreciation which the Society had always held of Dr. McLaughlin as a member.

Dr. Carroll addressed the Society upon the subject of Lithiasis, or urinary calculi.* He said that the number of deaths which of late had resulted from Bright's disease, cystitis, and other urinary affections, made this class of maladies worthy of close study. The popular interest upon this subject was evinced by the frequent resort which was now made by the people to such nostrums as kidney wort, buchu compound, kidney pads, &c. Dr. C. proceeded to speak of the various diatheses, which favored the formation of gravel and stone in the bladder, especially the lithic acid diathesis. The oxalic and mulberry calculi, were described and fifteen or twenty specimens of these concretions which had been voided at four different times from one patient were shown, most clearly illustrating their true character. He then spoke, quite fully, in regard to the acid and alkaline conditions of the blood, and of the proper modes of treating those conditions, so as to permanently cure the diseases under consideration.

Dr. Totten reported a case of oxalate deposits successfully treated by the use of mineral acids.

Dr. Spinning reported a case of violent convulsions controlled with anesthetics. There was a paralytic complication connected with the case, as evinced by an impaired motion of one of the arms. This report was discussed by Drs. Bryant, Spinning, Totten, Rodgers and Kay.

Dr. Bryant made some observations relative to the use of Lister's drainage tubes in dressing extensive wounds such as are necessarily made in surgical operations, like removal of the mammary gland, etc. He gave an elaborate description of the instrument itself, and of the manner in which it was to be used. It was intended to expedite union by first intention, by cleansing the wound and carrying off the purulent matter. The subject was further discussed by Drs. Rodgers and Kay.

Dr. Rodgers introduced a resolution providing that, in the reception of members hereafter, their cases be referred to the Board of Censors, to be reported on at the next regular meeting. This resolution was laid over for further action, to the December meeting.

After taking some informal action with reference to the better furnishing of the rooms for the accommodation of members, the Society adjourned to meet again on the second Thursday in December.

*Published in this issue of the JOURNAL.

REVIEWS AND BOOK NOTICES.

Prices are always inserted when furnished by the publisher, or when obtainable from the bookseller.

The Medical Record Visiting List for 1880. Published by Wm. Wood & Co., New York.

This publication is compact in form, elegant in finish, and contains much valuable information. There are two varieties, both interleaved, for thirty patients or sixty patients, bound in extra-finish red and green leather. Prices \$1.25 and \$1.50. This list has become one of the prime favorites, and is used very generally.

The Wilderness Cure. By Marc Cook, author of "Camp Lou." Pp. 147. New York: Wm. Wood & Co. 1881.

A few weeks ago we announced the death of the author, and now comes his book, which is rather an account of benefit to health than cure for consumption. It was written after a season of steady improvement, and he was encouraged by his experience to advise others to follow it. Nevertheless he says of himself: "The author is far from robust health. The experiment has proved successful beyond the most hopeful anticipation, but it is to be remembered that it is an experiment still under trial." For him the experiment was a failure.

The author is a sparkling writer, and gives us his experience together with many hints for the guidance of others who may wish to undertake the same or a similar camping out.

Favorite Prescriptions of Distinguished Practitioners with notes on treatment.

By B. W. Palmer, M. D. New York: Birmingham & Co. 1881. 16 mo. pp. 121.

These prescriptions are classified, and in addition we find an ample index. So far as we can observe the "distinguished practitioners," who are drawn upon, are, with only one or two exceptions, all Americans. The book is none the worse for this, however.

We have little use for cut and dried prescriptions, and still less for physicians who rely upon them.

Indigestion, Biliousness and Gout in its Protean Aspects. Part I. Indigestion and Biliousness, by J. Milner Fothergill, M. D., Member of the Royal Coll. of Physicians of London, Senior Assist. Physician to the City of London Hospital for Diseases of the Chest etc., etc. New York: William Wood & Co. Cloth. 8vo., pp. 320.

Fothergill is not only well known on this side the Atlantic, but he is

universally liked. He has a plain, straight-forward way of putting things that seems to just suit the American heart.

This book is based on physiological principles, the history of normal digestion preceding the consideration of indigestion. The liver, its functions and derangements, are quite fully discussed.

The author thinks the diseases considered by him in this book are on the increase. Whether this is so or not they are sufficiently prevalent already to make the book both interesting in the reading and of value in daily practice.

Walsh's Physicians' Call-book and Tablet. Ralph Walsh, M. D., 332 C Street, Washington, D. C. Sixth Edition. Price, \$1.50.

The printed matter has been carefully selected, and contains just what is needed in emergencies. The pages for registering visits are so ruled that they will accommodate a practice of thirty-five patients a week for one year. The book is good for any year, and can be commenced any time of the year.

Walsh's Physicians' Handy Ledger. Ralph Walsh, M. D., 332 C Street, Washington, D. C.

The Handy Ledger is a companion to the Call-book, and will materially assist the hurried and busy practitioner in keeping his accounts. Each page contains the account of one family for one year, so that by transferring at the end of each year the book is good until all the pages are used.

The Physicians' Memorandum Book. By Joel A. Miner, Ann Arbor, Mich. Fifth Edition, with Clinical Columns and Ledger Sheets. Price, \$1.25.

This is like other books of its kind, and contains the usual tables, etc. The page which is usually left blank, facing the visiting list, is in this devoted to a clinical record. The ledger sheets are for short accounts, which are not worth carrying to the permanent ledger.

Landmarks—Medical and Surgical. By Luther Holden, ex-President, Member of Council, and member of the Court of Examiners of the Royal College of Surgeons of England, Consulting Surgeon, St. Bartholomew's and the Foundling Hospitals, etc.; assisted by James Shuter, M. A. Camb, F. R. C. S., Assistant Surgeon, Royal Free Hospital, etc., from the Third English Edition, which additions by Wm. W. Keen, M. D. Prof. of Artistic Anatomy in the Pa. Academy of the fine Arts, etc. Henry C. Lea's Son & Co., Phila. 1881. 12 mo. pp. 148.

"To teach the students the habit of making the eye and the hand work together, and to educate the 'touch' upon the living body," so that they may be able to form a correct diagnosis when called upon to examine an injury or detect a disease, is the object of this practical and accurate little guide.

It is a book not to be read merely, but to be studied and committed to memory. The American editor, who is well known as an enthusiastic admirer of what he calls "clinical anatomy," has added many valuable suggestions.

Diseases of the Bladder and Prostate Gland. By Walter J. Coulson, F. R. C. S., Surgeon to St. Peter's Hospital for stone, etc. 6th edition, pp. 393.

Artificial Anesthesia and Anesthetics. By Henry M. Lyman, M. D., Prof. of Physiology and Diseases of the Nervous System, Rush Medical College, Chicago, etc., pp. 338.

Food and Dietetics, physiologically and therapeutically considered. By F. W. Davy, M. D., F. R. S., F. R. C. P., Physician to, and Lecturer on Physiology, at Guy's Hospital. 2d edition, pp. 402.

These are three volumes of Wood's Library of Standard Medical Authors for 1881.

1. It is twenty-three years since the publication of the fifth edition of this work. During this time the subject of the chemistry of the urine has become so extensive that the chapter formerly devoted to it is now omitted, and the subject left for special treatises. The anatomy and physiology of the bladder and prostate are fully considered. Calculus occupies several chapters, including one devoted to a consideration of the means at command for preventing the formation of the deposit. All honor is given to our countryman, Dr. Bigelow, for his discovery of a safe method for rapid lithotomy.

Although the progress in the surgery of the bladder has been great during the past few years, the author has succeeded in embracing all the points of real advance, and in making, therefore, a valuable contribution to literature.

2. This book is compiled by the author from the best known works on this and kindred subjects. No agent of the class seems to have gone unmentioned. About one-third of the book is devoted to anesthesia, its history, phenomena, physiology, method, accidents, mortality, medico-legal and other relations. The last two-thirds deal with individual anesthetics, their chemical nature, and physiological and pathological effects.

3. In addition to thorough discussion of the chemistry of foods and the physiology of their digestion, chapters are given on practical dietetics, including diet for infants, for training, for gout, leanness, stoutness, diabetes, dyspepsia, etc. We find, also, directions for the preparation of articles for invalids, and the dietaries of English hospitals. The book is filled with practical suggestions.

Eczema and its Management. A practical treatise based on the study of two thousand five hundred cases of the disease; by L. Duncan Bulkley, M. D., Attending Physician for skin and venereal diseases at the New York Hospital; Dermatologist to the hospital for the ruptured and crippled; editor of the "Archives of Dermatology," etc., etc. New York: G. P. Putnam's Sons. London: J. & A. Churchill, 1881.

Of all the cases of skin disease applying to the ordinary practitioner, eczema constitutes nearly or quite one-half. A special treatise on this disease, in which all its multitudinous forms shall be fully described and treated, is, therefore, very acceptable. Having on hand several stubborn cases—and

what practitioner has not?—we have read the book with great interest, and greatly to our edification.

The author regards the disease as ordinarily of constitutional origin, though local irritation may be the immediate cause of its appearance in some cases. Such being its origin, treatment is instituted accordingly. This consists chiefly in finding out the exciting cause—whether in the alimentary canal, the liver, uterus, etc.—and treating the case accordingly. Tonics are almost invariably indicated, and alteratives. Arsenic is useful in many cases, but is by no means a specific. Diet and hygienic regulations are all important.

Locally, when the disease is acute or subacute, soothing and protecting applications are to be made. Bathing is to be indulged in cautiously, and infrequently, and alkaline baths are preferable. In chronic forms, with much thickening of the skin, stimulating applications may be made; but these must be made cautiously and under the immediate supervision of the physician. He regards all cases as curable, though he confesses that many are stubborn and difficult to manage.

The word “management” in the title, is well chosen; for it is certainly a disease that has to be *managed* most carefully.

The Mother's Guide in the Management and Feeding of Infants. by John M. Keating, M. D. Lecturer on the Diseases of Children at the University of Pennsylvania, etc., etc. Philadelphia: Henry C. Lea's Son & Co., 1881. Cloth: 12 mo., pp. 118.

This is a very practical little guide for the use of judicious mothers. “A little learning is a dangerous thing,” and we have never yet seen a work of this kind that could be placed indiscriminately in the hands of parents; while most would be benefited by its perusal, a certain number will always be found who have such an entire lack of common sense and judgment that they cannot be trusted with it.

The book before us is prepared with much care, and its author is thoroughly well-informed. There are few physicians who will not find here food for reflection.

Antiseptic Surgery. The principles, modes of application, and results of the Lister dressing. By Dr. Just Lucas-Championniere Surgeon to the Hopital Tenon, editor of the Jour. de Med. et de Chirurg. Prat., etc. Translated from the second edition, and edited by Frederick Henry Gerrish, M. D., Surgeon to the Maine General Hospital, Prof. of Mat. Med. and Ther. in Bowdoin College, etc., Portland: Loring, Short and Hermon. 1881. 8vo pp. 240, cloth: price, \$2.25.

In view of the discussion on Listerism at the International Congress, mentioned editorially last month, the publishers card, which accompanies the book, is decidedly amusing. They say:

“This book should be in the hands of every practitioner. Its careful perusal will make it plain not only that the Listerian theory is rational and its

practice wonderfully satisfactory, but also that its application is neither difficult nor seriously expensive. No one who has to treat wounds can afford to be without a knowledge of this most modern system, which will enable him to restore his patients with the utmost rapidity, safety and comfort."

The truth is this book makes its appearance "the day after the fair."

A Manual of Histology. Edited and prepared by Thomas E. Satterthwaite, M. D., of New York, President of the New York Pathological Society, Pathologist to St. Luke's and Presbyterian Hospitals, etc. In association with Drs. Thos. Dwight, J. C. Warren, W. F. Whitney, C. J. Blake, and C. H. Williams, of Boston; J. Henry C. Simes, of Philadelphia; B. F. Westbrook, of Brooklyn; and E. C. Wendt, Abraham Mayer, R. W. Amidon, A. R. Robinson, W. R. Birdsall, D. B. Delavan, C. L. Dana, and W. H. Porter, of New York City. With 198 illustrations. New York: William Wood & Co. 8vo. Pp. 492.

In order to produce a volume best fitted to be regarded as a standard, the editor secured the aid of a corps of collaborators, and allotted the work according to the special field of study of each, the whole being revised by himself. To those familiar with the progress of histology in this country, the names of his associates, as given above, will be a strong guarantee of the excellence of the book.

The subject matter is well arranged, and the text profusely illustrated, while the mechanical execution is most excellent.

A Treatise on the Diseases of Infancy and Childhood. By J. Lewis Smith, M. D., Clinical Professor of Diseases of Children, in Bellevue Hospital Medical College, New York, etc. Fifth Edition, thoroughly revised, with Illustrations. Philadelphia: Henry C. Lea's Son & Co. 1881. 8vo. Pp. 836.

It is but two years since the appearance of the first edition. The present edition is an indication rather of the great popularity of the book—based on its inherent merit—than of any great advancement in the department treated of. A few additions only have been made; we notice especially, articles on the weight and growth of infants, on the quantity of food necessary, on strumous ophthalmia, and on constipation. The chapter on the quantity of food necessary is an exceedingly valuable one. He finds that twelve infants, of five weeks or less, required an average of about twelve ounces of milk in twenty-four hours; fifteen infants, of five weeks to ten months, an average of twenty-four ounces; twenty-eight children, between two and three years, ate, on an average, of bread $7\frac{1}{2}$ oz.; butter, 1 oz.; beef, $4\frac{1}{2}$ oz.; potatoes, 4 oz.; milk, 1 qt. He gives other tables, but these will suffice to show that the vast majority of bottle-fed infants are fed altogether too much. Now and then an error is made in the other direction, but not often; infinitely more are killed by stuffing than by starving.

Smith on Diseases of Children is above criticism and needs no praise.

SELECTIONS.

MEDICINE.

THE EMPLOYMENT OF ENEMATA INSTEAD OF PURGATIVES IN ENTERIC FEVER.—Dr. Allen objects to the use of purgatives in the treatment of constipation in enteric fever; first, because they may irritate the stomach; secondly, because there is danger of inducing troublesome and exhausting diarrhea; thirdly, because hemorrhage may be induced; and lastly, because of the danger of causing perforation. The author, on the contrary, states that enemata accomplish all that is really required in such cases, viz.: the evacuation of the rectum, whilst the relief obtained from their use as immediate, and is obtained, as a rule, without any disturbance of the higher portions of the alimentary tract.—*Lancet*.

STARTIN'S MIXTURE.—For reducing cutaneous congestion in erythema, urticaria, etc.:

Sulphate of iron.....	1 part.
Sulphate of magnesium,	
Tincture of gentian, of each	8 parts.
Dilute sulphuric acid.....	2 “
Water.....	24 “

A teaspoonful to be taken after eating.—*New Remedies*.

Boracic Acid Poisoning—The prevailing opinion is favorable to the use of boracic acid in catarrhal affections of mucous membranes. Nobody apprehends poisonous effects from this remedy. Mododewkow, of Moscow, relates two cases of fatal poisoning that are well calculated to disturb the assurance of safety in the use of boracic acid. A patient with a pleuritic exudation was tapped, and the cavity subsequently washed out by injections with a five-per-cent. solution of the acid, a part of which was allowed to remain in the pleural cavity. A similar operation was performed upon a lumbar abscess. Both patients soon complained of nausea, followed by incessant vomiting and hiccup. An erythema appeared on the face, whence it rapidly extended over the trunk and extremities. The temperature was but passingly increased, and sunk to 96.8° F. The pulse became filiform, and cardiac paralysis supervened with symptoms of utter exhaustion. The autopsy of the second patient exhibited punctate ecchymoses upon the anterior wall of the right ventricle, otherwise nothing remarkable. Morphine exercised no control over the emesis. The mind of the patients was at no time clouded.

TABULAR STATEMENT, SHOWING THE POINTS OF DIFFERENTIAL DIAGNOSIS OF CARDIAC VALVULAR LESIONS.—From the *London Lancet*.

BY BYRON BRAMWELL, M. D., LECTURER ON MEDICINE IN EXTRA ACADEMICAL SCHOOL, EDIN.

CHARACTERS OF THE MURMUR.				EFFECTS OF THE LESION ON THE HEART AND CIRCULATION.								
Lesion.	Points of differential maximum intensity.	Rhythm.	Directions of propagation.	Left ventricle.	Left auricle.	Lungs.	Pulmonary second sound.	Right ventricle.	Tricuspid valve.	Right auricle.	Systemic venous circulation.	Arterial circulation; pulse.
Mitral stenosis.	Apex, which is normal.	Presystolic.	Downwards and inwards to a limited extent.	Normal or small.	Dilated and hypertrophied.	Engorged lung symptoms.	Accentuated.	Hypertrophied and dilated.	Towards end may be incompetent.	Dilated and hypertrophied.	Engorged; dropsy; face blue, and effects of engorgement of stomach, liver, kidneys, brain, etc.	Small, weak, unequal in volume, irregular in time.
Mitral regurgitation.	Apex, which is displaced downwards and outwards.	Systolic.	Upwards and outwards to left axilla, and inferior angle of left scapula.	Hypertrophied and dilated.	Dilated and hypertrophied.	Engorged lung symptoms.	Accentuated.	Hypertrophied and dilated.	Towards end may be incompetent.	Dilated and hypertrophied.	Engorged; dropsy; face blue, and effects of engorgement of stomach, liver, kidneys, brain, etc.	Small, weak and irregular in time.
Aortic stenosis.	Second right costal cartilage.	Systolic.	Upwards along course of aorta and into vessels of neck.	Hypertrophied.	Normal.	Normal.	Normal.	Normal.	Normal.	Normal.	Normal.	Small, regular and of good strength.
Aortic regurgitation.	Second right costal cartilage, mid. sternum, lower end sternum.	Diastolic.	Downwards to lower end of sternum.	Hypertrophied and dilated.	Normal so long as mitral valve is sound.	Normal so long as mitral valve is sound.	Normal so long as mitral valve is sound.	Normal so long as mitral valve is sound.	Normal so long as mitral valve is sound.	Normal so long as mitral valve is sound.	Normal so long as mitral valve is sound; face pale.	Jerking, visible, collapsing and tortuous.
Tricuspid regurgitation (usually secondary)	Lower end of sternum.	Systolic.	Upwards and outwards towards right.	Normal if lesion is primary.	Normal if lesion is primary.	Normal or anemic if lesion is primary.	Weak if lesion is primary.	Hypertrophied and dilated.	Incompetent.	Dilated.	Engorged; venous pulsation in neck, dropsy, etc.	Small, weak, irregular.

SQUIBB'S COMPOUND RHUBARB MIXTURE.—Take of—

Fluid extract of rhubarb.....	256 minims,
Fluid extract of ipecacuanha.....	51 minims,
Soda bicarbonate.....	512 grains,
Glycerine	6,835 grains,
Peppermint water, a sufficient quantity to make the whole mixture measure two pints.	

The dose, as an aperient for adults, is from half a fluid drachm to two fluid drachms, giving fasting, three times a day.—*Drug. Circular.*

SQUIBB'S LAXATIVE OR PODOPHYLLUM PILLS.—

Resin of podophyllum.....	36 grains,
Alcoholic extract of belladonna.....	18 “
(Or alcoholic extract of hyoscyamus.....)	144 “)
Powdered capsicum.....	144 “
“ sugar of milk.....	144 “
“ gum arabic.....	36 “
Glycerine.....	40 minims,
Syrup, sufficient.	

Mix, and divide into one hundred and forty pills. Dry these by exposure at ordinary temperature, until just hard enough to retain their form, and then keep in a well-stopped bottle to prevent further drying.—*Ibid.*

POWELL'S BEEF, COD LIVER OIL, AND PEPSIN has attained popularity as a nutrient in a remarkably short time. The combination is a good one, and the manufacturers have an enviable reputation as a reliable and honorable firm.—*Cincinnati Lancet and Clinic, March 10th, 1881.*

THE UTILITY OF STRYCHNIA AS AN EXPECTORANT.—Fothergill (*British Medical Jour.*) says: The experiments of Rokitsansky have shown that strychnia is a powerful stimulant of the respiratory centers, and I have arrived at the same conclusion from experiments upon rabbits. When the respiratory center was paralyzed by aconite the injection of strychnia exercised a most potent influence in restoring the circulation. I have used it clinically with much success, when the respiration was embarrassed, in acute bronchitis with difficult expectoration, in chronic bronchitis and emphysema, and when the right ventricle was dilated, it added to the efficiency of digitalis.

ALBUMEN WATER.—Dr. J. M. Keating suggests the use of “albumen water” when milk cannot be obtained, or is contra-indicated. The whites of one or more eggs are dissolved in a pint of water, and then sweetened with glycerine and flavored with orange flower water, or to suit the taste of the patient; this is given *ad libitum*, and given cold. He has seen this preparation retained when milk and beef tea were not tolerated. It had once saved a patient's life in a slow case of typhoid dysentery, and in a case that came under his care lately it was the only thing that was tolerated by a child of two years for almost two weeks. It is largely used in France; but mention of it is to be found in any report of the treatment of typhoid fever in any of our journals or text-books.—*Med. Times.*

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COTT & HANN, Publishers, Columbus,

A BILL TO CREATE A STATE BOARD OF HEALTH AND REGULATE THE PRACTICE OF MEDICINE IN THE STATE OF OHIO.

The following bill will be presented to the next Legislature for adoption. Already petitions are being circulated in various parts of the State, to this end.

The bill may not be in all its details the very best possible, but it gives a general idea to work from, and amendments may come in later.

At the present time, Ohio—having no medical law—is the very paradise of quacks, who are driven hither by the enforcement of the laws in nearly all the adjoining States. The profession should earnestly labor for the adoption of a law to protect the people from this horde of rapacious and conscienceless sharpers.

An act to create a State Board of Health and to Regulate the Practice of medicine :

SEC. I. Be it enacted by the General Assembly of the State of Ohio : That within fifteen days after the passage of this act the Governor shall nominate and by and with the consent and advice of the Senate appoint, from different parts of the State, nine physicians, who, when organized, shall be known as the "Ohio State Board of Health." Three of said physicians shall be appointed for one year; three for two years; and three for three years; and annually thereafter three physicians of like reputation and in like

manner shall be appointed to fill the vacancies occurring in said board, who shall hold their offices for three years and until their successors are appointed and qualified. The said nine physicians so appointed within twenty days after their appointment, having first taken the oath of office prescribed by the Constitution of the State for State officers and received certificates of their appointment from the Secretary of State, shall meet and organize by electing one of their number president. They shall also as soon as a suitable person can be obtained elect a secretary who shall be the executive officer of the board. They may elect one of their number a secretary, in which event the Governor shall fill the vacancy, and it is hereby made the duty of the Governor to fill all vacancies in said board occurring when the Legislature is not in session until the same shall meet again.

SEC. II. The State Board of Health shall make, adopt and publish such rules and order of business as may be necessary to make this act effective and facilitate the transaction of its business. It shall provide a seal, and all correspondence and papers emanating from it shall be under the seal of said board. It shall meet quarterly, and oftener if deemed necessary, at such place as it may designate, the first meeting to be held in the city of Columbus. The annual meeting after the first shall be held during the month of June in each and every year, and a majority of its members shall constitute a quorum for the transaction of business. No members of the board, except the Secretary, shall receive any compensation for services rendered; but their traveling and other necessary expenses, while employed on the business of the board, shall be allowed and paid. The Secretary shall receive such compensation as may be allowed by the State Board of Health, and approved by the Governor, and to be paid him in the same manner as the salaries of other State officers are paid, and such necessary expenses shall be allowed him as the Secretary of State shall audit, on the presentation of an itemized account, having vouchers annexed, together with the certificate of the board.

SEC. III. The secretary shall hold his office so long as he shall faithfully discharge the duties thereof; but may be removed for just cause, at any regular meeting of the board, by a majority of all the members voting therefor. He shall keep a record of the transactions of the board; shall have the custody of all books, papers, documents, and other property belonging to the board, which may come to him as such secretary, or be deposited in his office; shall communicate with other State boards of health, and with the local boards of health within this State; shall file and keep all reports received from such boards, and all correspondence of the office appertaining to the business of the board. He shall perform all other duties prescribed in this act for the said secretary, or directed by the State Board of Health.

SEC. IV. The State Board of Health shall supervise the health interests of the people of this State. They shall make careful inquiry in respect to the causes of disease, and especially of epidemics, and investigate the sources of mortality, and the effects of localities, employments, conditions, ingesta, habits, and surroundings, on the health of the people. They shall advise officers of the government or other State boards in regard to the location, drainage, water supply, disposal of excreta, heating and ventilation of public buildings. They shall collect and preserve such information relating to death, forms of disease and deaths, as may be useful in the discharge of the duties of said board. All health officers of local boards of health in the State

shall transmit to said State Board of Health copies of their reports and publications and such sanitary information as may be useful to the people of the State.

SEC. V. The State Board of Health shall supervise the registration of marriages, births and deaths, and also the registration of forms of disease prevalent in the State, and the secretary of said board shall superintend the registration of the vital statistics of the State. They shall prepare the blank forms necessary for obtaining and preserving such records, and forward such of them to the health officers of local boards as may be required by physicians, assessors, local boards, and others whose duty it is to gather information in relation to the vital statistics of the State. The State Board of Health shall also prepare the forms and establish the rules by which permits for transporting the dead bodies of persons for burial beyond the county where the death occurs; and in all cases the said Board of Health shall require coupons to be attached to such permits, to be detached and preserved by every common carrier or the person in charge of any vessel, railroad train or vehicle to which dead bodies shall be delivered for transportation. Any violation of these rules shall subject the offender to a fine of ten dollars for each offense.

SEC. VI. The State Board of Health shall, when they may think best to do, appoint committees or engage suitable persons to render special sanitary service, to make or supervise practical and scientific investigations and examinations, requiring expert skill, and to prepare plans, and report thereto. And it is hereby made the duty of all officers and agents, having the control charge or custody of any public structure, work, ground or erection, or any plan, description, outline, drawings, charts, thereof or relating thereto, made, kept or controlled under any public authority, to permit and facilitate the examination and inspection by said board ordered, and the members of said board, and such other officer, or person as may at any time be by said board authorized, may, without fee or hindrance, enter, examine and survey all grounds, erections, vehicles, structures, apartments, buildings and places. But the Legislature shall first determine the amount which shall be expended during the year for such special sanitary work, and the expenditures shall not exceed the amount thus determined and set apart for the year.

SEC. VII. The directors of county infirmaries of the several counties of this State shall act as local boards of health for their respective counties. Each local board thus created shall elect a physician, preference being given to adepts in sanitary science, who shall be *ex-officio* a member of said local board and the health officer of the same. He shall hold his office during the pleasure of the board, but may be removed for just cause at any regular meeting of the same by a majority of the members voting therefor, on which motion he shall not vote. The local boards of health here created shall not supercede or in any way interfere with such boards established by municipal regulations in any of the counties of this State. But all local boards of health of this State, created by this act and existing by authority of municipal law, shall be governed by and perform such duties as may be required by the State Board of Health.

SEC. VIII. The health officer of the several local boards of health throughout the State immediately after his election shall notify the State Board of the fact, and state his postoffice address. He shall receive and without delay distribute all forms from the State Board of Health to the rightful

persons and all returns from physicians, accessors, and local boards, to the said State Board of Health. And he shall perform such other duties as this act, his local board or the State Board of Health may require of him. And he shall receive for his services so rendered such reasonable compensation as his board may allow and the judge of the probate court approve to be paid out of the county treasury. And any failure of said health officer to perform the duties prescribed in this act shall subject him to a fine of ten dollars for each and every offense.

SEC. IX. Every person proposing to engage or to continue in the practice of medicine in this State shall, within thirty days after the organization of the State Board of Health provided for in this act, present to said board for verification and record a diploma from a reputable and legally organized medical college, or an affidavit or other satisfactory evidence that the applicant is a graduate in medicine or has been in the continuous practice of medicine in this State, for at least ten years preceding the passage of this act, whereupon the State Board of Health shall give to such applicant a certificate stating the facts as to graduation or continuous practice, to which shall be added the name of the county in which the applicant proposes to locate or is located, which certificate shall be recorded by the county clerk in a book to be provided by the county commissioners, and kept in the office of the county clerk, and this certificate shall be conclusive evidence of the right of the lawful owner of the same to practice medicine in and from the place designated in said certificate, and without such certificate and record it shall not be lawful for any person to practice medicine in this State. And any one who prescribes, or prescribes and furnishes medicines to the sick for a consideration, shall be held in the meaning of this act as engaged in the practice of medicine.

SEC. X. Every person applying for a certificate as provided for in this act shall pay a fee of one dollar, which shall be paid into the State treasury, and every person attempting to practice medicine in this State without such certificate, shall, upon conviction, be fined not less than five nor more than fifty dollars for each and every offense, to which may be added imprisonment not to exceed thirty days. And every physician who may be convicted of using his profession for unlawful purposes, as in the production of criminal abortion, etc., shall be held as forfeiting his certificate and all right to practice medicine in this State.

SEC. XI. It shall be the duty of every physician to keep the record of the deaths occurring in his practice or that may come into his knowledge where death occurs without medical attendance, noting the form of the disease, and, as far as possible, the cause which produced it, and report the same to the local board of health at the time and in the manner prescribed by the State Board of Health, and any failure to do so shall subject said physician to a fine of ten dollars for each and every offense.

SEC. XII. It shall be the duty of assessors of personal property in the several townships and wards of cities and towns throughout the State annually to collect such information as to marriages, births and deaths, as may be required by the State Board of Health, and report the same at the time and in the manner prescribed by the said board to the local board of health, and any failure to do so shall subject the assessor to a fine of ten dollars for each and every offense.

SEC. XIII. It shall be the duty of said State Board of Health, on or

before the first Monday in December in each year, to make a report in writing to the Governor of the State upon the vital statistics and the sanitary condition and prospects of the State, and such report shall set forth the action of said board and of its officers and agents and the names thereof, and also the names of physicians registered for the past year, and may contain other useful information, and shall suggest any further legislative action or precautions deemed proper for the better protection of life and health; and the annual report of said board shall also contain a detailed statement of the money paid out by or on account of said board and a detailed statement of the manner of its expenditure during the last past year, but the amounts so paid out shall not aggregate a sum exceeding twelve thousand dollars in any one year, and the sum of twelve thousand dollars is hereby appropriated for the purpose of this act. And this report shall be published in form and manner as other State reports.

SEC. XIV. It shall be the duty of all officers and persons named in this act to faithfully discharge the duties assigned to them severally, and all of such officers and persons, who shall neglect or fail in the discharge of said duties where fines are not specifically stated, shall be declared guilty of a misdemeanor, and, upon conviction, shall be fined in such sum as the court in its judgment may deem necessary to secure the proper enforcement of this act. And all prosecutions under this act shall be in the court of common pleas and conducted by the prosecuting attorney for the county in which the offense was committed, and all fines imposed and collected shall be paid into the county treasury.

SEC. XV. This act shall be in force and take effect immediately. And all acts and parts of acts in contravention of this act are hereby repealed.

THE PROPOSED LAW AS VIEWED BY AN EXPERT.—We extract the following running comments from a private letter received from Dr. Jas. E. Reeves, Sec. of the W. Va. State Board and editor of our W. Va. Department—to which, by the way, he has been too busy to contribute for some time past, owing to his arduous labors in getting the new law into effect:

“I have read carefully your proposed Bill, and must tell you I think it inferior, in some of its features, to our law,—particularly the sections regulating the practice of medicine. What will you do with practitioners of less than “ten years’ continuous practice” without a diploma? If the quality of Ohio physicians may be measured by our experience in W. Va., you will find that at least 20 per cent. of them have neither a diploma nor the ten years’ experience; and this element will resist the passage of the Bill. There should, I think, have been a provision in the Bill for the accommodation of this class of practitioners—allowing them, at least, to appear before a Board of Examiners. If the Bill pass as it now reads, they must quit business until they can secure a diploma—may be, *purchase* one. Mark you, it will be charged by the enemies of the Bill that it is wholly in the interest of the colleges; and this cry may kill it in spite of your energies to secure its passage.

“Another experience you will have; that is, perfect *indifference* on the part of those who should feel the greatest interest in the passage of such a law, while, on the other hand, quacks and irregulars of all shades will put on the war-paint, and make a united effort to kill it at the first step.

“Just now Ohio is an inviting field for the repose of pretenders in medicine. For several years they have been coming in from Illinois—driven from that State by the operation of law; and during the last six months, little West Virginia has sent over the river scores of them, so that your great State has become a sort of dumping-ground for refuse from the adjoining States.

“In this connection, I am reminded of another serious objection I could make to your Bill,—its silence concerning “Itinerants,” a class of scoundrels who are secure without hindrance. And still another objection: druggists and pharmacists may go on prescribing for the sick (provided no charge is made for such service), doing harm to credulous sufferers and damage to the business of physicians. These, in my opinion, are serious defects in the Bill, and they will soon be discovered if it become a law.

“Nothing could work more smoothly than the W. Va. State Board of Health law. We have no *pathies* to touch our sympathies nor disturb our harmony. Five of the six members of the Board are graduates of the University of Pennsylvania,—the other one, a graduate of Jefferson. What other State Board can present such a *regular* front? Yet, we have licensed representatives from all the so-called “schools in medicine”—eclectics, homeopaths, etc.—who, not having the diploma nor the ten years’ continuous practice in the State, were found, on examination, to be qualified within the meaning of the law, and, of course, received certificates. My registration book shows that out of 800 legally qualified practitioners of medicine and surgery in the State, there are not more than twenty homeopaths! Our hardy mountaineers believe in tangible doses and sensible effects.

“Our law has the hearty good will of every worthy man in the State. Without distinction of class of practitioners or school in medicine, a contribution fund of several hundred dollars has already been raised to cover the deficiency of the State appropriation, and insure the activity and usefulness of the Board.”

TEMPERATURE CHARTS.—Attention is called to the very convenient charts for recording the temperature, pulse, and respiration, which are furnished by the publishers of the JOURNAL. The suggestion of making such a chart comes from Dr. J. C. Reeve, of Dayton, who finds a serious objection to the use of the charts ordinarily sold, in their large size, which necessitates their being folded in order to be carried in the visiting list. This objection is overcome in the charts now offered, and that, too, without diminishing their utility.

THE OHIO MEDICAL JOURNAL.

Vol. I.

JANUARY, 1882.

No. 7.

COMMUNICATIONS.

TYPHO-MALARIAL FEVER.

BY CHAUNCEY P. LANDON, M. D., WESTERVILLE, OHIO.

Read before the Central Ohio Medical Association, at Its December Session.

In the presentation of a text of a report upon the so-designated "Typho-Malarial Fever," it has been thought best to make the following declarations, as a basis for discussion by the Association:

Typho-Malarial Fever is a misnomer. The nomenclature is not only faulty, but exceedingly unfortunate, as it may possibly mislead the young practitioner, and prevent the adoption of a rational mode of therapeutics; for however much we asseverate that we only prescribe for conditions—not names—the name of a thing, especially the name of a disease, bears with it unacknowledged mental impressions: since in the treatment of typhoid fever very conservative therapeutics is the acknowledged and established philosophy and accepted practice, whereas in the so-termed Typho-Malarial Fever, early, energetic, active medication is demanded.

There are none of the essential elements of enteric fever presented in the malarious fever which we are describing. It is essentially a malarious fever, and most prevalent where miasmatic poisons are most prolific of the peculiar morbid influences and diseased action in this latitude, as well as elsewhere so far as we have a history of its existence.

Enteric fever may and does exist during the months of low temperature, and it is not unfrequently found most grave and fatal during the winter months. So-termed typho-malarial fever is only present during the heated, or autumnal, months, except as a latent or semi-acute poison, and is most prevalent in hot climates, and during or subsequent to seasons of excessively high temperature, after early wet periods, followed by drought, exposing

large surfaces to the heated rays of the sun, added intensity and graveness evinced.

Enteric fever is confined to no section or climate of one country. Typho-malarial fever is only found in malarial sections, intensified by extreme heat in marshy localities.

Enteric fever exists where typho-malarial fever is not known.

There is no greater differential condition, or symptomatology, in so-termed typho-malarial fever of to-day, and the remittent fever of thirty, or forty, or sixty years in the past, than is presented in the intermittent fevers of those periods and to-day.

There exist to-day the same differential conditions and symptomatology in diphtheria, and erysipelas and dysentery, as well as other maladies which are the product of like or approximating similar morbid causation; even in inflammatory diseases proper, there is less sthenic action.

Enteric fever proper is a very *rare* fever in this section, or in the Ohio Valley. Typho-malarial fever is a most frequent visitant.

The symptomatology and pathology of the remittent fever of this climate, and the so-termed typho-malarial fever are, or are believed to be, identical.

We have the same pathological conditions and presentations, as far as known, in the one as in the other.

While we recognize that we may not, upon the onset of invasion, determine that we have presented to us typhoid fever, or malarial fever, nevertheless the *diacritica signa* are sufficiently clear to determine very early. We have the same characteristic surface, leaden hue, mental and nervous depression, loss of tone and appetite, leaden tongue, *malaise*, epigastric tenderness and disturbance, pain in loins and limbs, excessive pain in head, hyperesthesia, cerebral complication and disturbance, hemorrhage, tympanites, diarrhea, exhaustion and collapse. These are the symptoms and conditions, evinced as universally as in any given disease.

The so-called Typho-malarial fever is identical with the so-called camp, or Chickahominy fever of the Army of the Cumberland, and the James River fever, and the Peninsula fever, of the Army of the Potomac, incident upon the late war, so prevalent among our soldiery in malarious districts, intensified by the vicissitudes of camp life and crowd poison. Local impurities, accumulated garbage, compost deposits, sewer emanations, filthy surroundings, gaseous exhalations of all elements entering into the formation and production of koino-miasmata, will produce, develop and intensify the acuteness of causation, and the severity of its influence upon man. The water supply of a season, or the introduction therein of *materies morbi*, is a recognized source of causation by all intelligent observers.

It should be emphasized that it is an error to act upon the assumption that congestion, engorgement and inflammation, in idiopathic lesions, or lesions

the product of miasmatic exhalations, are the cause of the accompanying fever. In truth, they exist as a consequence. The real causation is a receptive effluvial virus acting upon the fluids. If this be a true deduction, it is most suggestive of the necessary and required therapeutics, the true indications and requirements being the neutralization, destruction, or elimination of the receptive poison before these grave lesions are set up.

The rational and recognized treatment of remittent fever is most successful in mitigating, abbreviating, or arresting the disease, and in preventing death, in so-declared typho-malarial fever; and to be most successful, promptness and activity must be exercised *early* in the case.

All forms and types of endemic and epidemic manifestations of to-day, are characterized by an adynamic, instead of a sthenic character or condition. Instead of the fever so prevalent in many localities this season being a new form of fever, as is claimed by some gentlemen, it is the same fever which has existed, to a less or greater extent, since the first settlement of the American Continent, historic for two hundred and seventy-five years. It was this identical fever, with which the English colonists and sailors were stricken; early after the landing at Jamestown, in the inceptive history of our country, changed by, or modified by, the physical changes and conditions of the country, influences of civilization, modes of living, and altered constitution of man. Strikingly illustrative of the identity of the *materies morbi*, is the identity of the sequelæ which may, and sometimes do, exist, if the receptive poison be not eliminated; viz: chronic hepatitis, icteroides, neuroses of stomach, rheumatism, constipation, thrombosis, abscess, hypochondriasis, impairment of mental faculties, and, in exceptional cases, insanity.

It is a malady that is most amenable to rational therapeutics.

As to treatment, without detail, it is confidently assumed that alterative and blood depuration, while vigilantly, energetically, and systematically maintaining the vital forces, is the correct general principle of action.

The writer is not more confident of the correctness of any given solution, than that the remedial agents which, if not the *sine qua non*, are the most rational and efficient, are hydrargyri chloridum mite, bark—sulphate of quinia being typical, the potashes—acetate being typical, alcoholic stimulants and iron. In no disease with which the writer has had to deal, except perhaps diphtheria and malignant erysipelas, will alcoholic stimulants not only be so generously tolerated, in such liberal quantities, but become actually *requisite*. It is assumed that every practitioner avails himself, in compliance with the dictates of common sense, as well as prudential and humanitarian considerations, of the certainly essential and efficient adjuncts of water—hot, tepid, or cold. Frequent surface sponging is a most grateful administration.

Counter-irritation, ventilation, sanitation, isolation, sedation, mental qui-

etude, and confidence will invite the vigilant attention of every physician.

Milk and whiskey constitute the diet *par excellence*.

These declarations are believed by the writer to be truths, and he asserts modestly his convictions and confidence that if they had been more universally recognized, received, and acted upon by the profession, many who are now dead would be living.

MILK-SICKNESS.

BY S. S. GRAY, M. D., PIQUA, OHIO.

This paper, although based on a report made by the writer to the Ohio State Medical Society in 1877, contains a number of additional facts and observations which deserve to be placed on record.

Milk-sickness is a subject that has been ignored by almost all of the standard authors and professors in Theory and Practice in our schools, or, if mentioned at all, has been passed over so lightly as to leave the impression that it is a disease of but little importance.

Almost the entire literature on this subject consists of a few articles scattered through our journals written by practitioners who have been in the midst of it, or by some unprofessional man who has, as he thinks, found out the cause of the poison; each setting up his theory only to have it overthrown by some other, or by an array of facts that prove it incorrect, at least in part.

In discussing a disease that is surrounded by so many mysteries as this is, I shall proceed in what may be considered an irregular way, giving such facts as have fallen under my own observation, and as have been obtained from those who have had much experience with it.

It is called "Milk-Sickness," "Sick Stomach," "Trembles," "Slows," &c., names derived from some peculiar circumstance or symptom that is prominent in almost every case of the poison. The poison is first developed among animals, generally of the herbivorous class, being obtained by them from the uncultivated lands, and generally supposed to be taken into their stomachs with their food.

The manifestation among animals is, if left alone, to stand or lie around for a few days, refusing to eat, and dying soon. But, if exercised violently, only for a short time, they are seized with trembling, and, in many cases, fall down and die suddenly. A horse may be taken from the pasture, without any symptoms of the poison, be driven for a few miles, and drop down dead in the harness. Hence the practice among some stock men, who have

been herding in a suspicious pasture, before putting a whole drove on a long drive, is to take one out and drive it some miles, to see if it develops any symptoms of the poison, rather than take the chance of losing largely.

A drover bought cattle for the Dayton market. After driving them several miles they became fatigued and began to show signs of the poison. He lost eleven in a distance of fifty miles.

The milch cow is the only animal that is comparatively safe, the poison being eliminated from her system in the milk. But while she is safe, she deals disease and death to her benefactors and those around her with no stinted hand. Calves, pigs, dogs, cats, and almost everything that partakes of her lacteal bounty, are her victims.

While this may be laid down as a general rule, it is subject to many exceptions; and here we meet with one of the difficulties in the investigation of this subject. It is seldom that all the stock of a certain pasture are simultaneously affected. Neither is it common for a whole family, or those who eat at the same table, to all be affected at the same time, if at all. To illustrate: On the farm of George Nettleship, of Miami county, which has been opened for many years, but which is not entirely clear of this poison, the stock were put in a certain woods pasture. The father and mother had become poisoned, and yet not to an extent that it was impossible for them to care for themselves, and, not suspecting milk-sickness, they allowed a small child to subsist, almost entirely, for some days, on bread and butter and the milk obtained from these cows, and yet it showed not the least symptom of the poison. One cow that was dry became affected with the poison and died: the rest of the cows were regularly milked and escaped. The dogs ate of the dead cow and died. Some of the buzzards that came to feast on the carcass also fell victims, and were found dead in the immediate vicinity. Why did the child escape, and why did the parents get the poison, are questions more easily asked than satisfactorily answered. That the flesh of animals contains this poison, is one of the questions that is settled. Even fish have been known to die in a short time after eating of the dead animals thrown into the water. Beef and veal are, doubtless, frequently the vehicles by which the poison is conveyed to the human stomach.

The poison, as developed in man, is followed by perhaps as much uniformity as in the symptomatology of any other disease. We first have languor, variable appetite, gnawing at the stomach, nausea, torpidity of the bowels, stiffness of the limbs, and an aversion to exercise. Truly it may be said our patient has the "slows." If overheated, then come the "trembles" and sick stomach, the languor becoming exhaustion, nausea, vomiting, gnawing, intense burning, torpidity of the bowels, and incontrollable constipation! His constant desire is for cold water to quench his insatiable thirst, by which he hopes to cool the intense burning, the soothing effect of which is but

momentary and soon exhausted. If the patient be allowed more water, it is followed by the same result, and what he most desires only increases his suffering. He rolls from one side of the bed to the other, hoping by change of position to get relief, careless of all surroundings and as to what his exposure may be. The breathing is slow, with occasional sighing, tongue moist and but slightly coated. The radial circulation is almost normal, but a violence of the circulation of the aorta is very perceptible, and of this the patient often complains. The bowels are not usually tender to pressure.

The ejections, which were at first white, glairy matter, with the fluids and medicine taken into the stomach, are now of a muddy brown. The peristaltic action of the whole alimentary canal seems to be inverted. In the intervals of vomiting there may be hiccough. With all the suffering and prostration the intellect remains clear. As the disease advances, the extremities become cold, a clammy sweat breaks out over the body, and the patient dies from utter exhaustion.

It is claimed by many persons and practitioners that there is a peculiar smell that is pathognomonic of the disease. In the face of so much evidence I do not feel like saying that it does not exist, but I have failed to detect it even in the same room where others have thought it very distinct.

Many cases supposed to be simple "Gastritis," in various parts of the country distant from the place that originated the poison, are doubtless "Milk-Sickness," the poison being transmitted in butter or meat.

Twelve cases of gastritis, two fatal, have occurred in the last half dozen years while using butter made on a certain farm. One family were my patrons. The family at the time consisted of father, mother, and a daughter. All complained of not feeling well. The daughter went by rail to spend the holidays in Cincinnati. Soon after entering the cars she felt sick and vomited several times before arriving in the city. She was taken to the home of a friend, and was very sick for two weeks. She was under the care of an eminent physician of that place, who treated it as simple gastritis. She returned home in January to find her father suffering from the same disease. The mother, from fatigue and exhaustion, was soon prostrated. The daughter had the care of both of them for a single night, and while they were very sick she had a relapse of her former attack. So that the whole family were down in January, 1881, with the mercury ranging from zero downward. Able counsel was called, including the physician who attended the daughter in her former attack. After twenty days of nausea, vomiting, and extreme suffering, the father died of exhaustion, with all the symptoms detailed above. The mother and daughter slowly recovered. The mother has had a subsequent attack while traveling on the cars, and visiting in Illinois and Missouri.

What this poison is, that is so subtle, and what produces it, are questions that have not been settled. One great difficulty in its investigation is the

uncertainty of its appearance. There are but few localities that will produce it with regularity, and in every case. I have known of a certain woods field that was for a long time suspected, and was not pastured by the proprietors. The fences became neglected, and for many years the cattle of the neighborhood pastured there *ad libitum*. In fact, during the dry seasons, when water was scarce in other localities, it became a favorite resort, and it was thought every vestige of the poison was obliterated. But after a while the fences were closed, and, in two weeks after the stock of the owner was turned into these grounds, the poison was distinctly developed in two members of the family, while the rest escaped. The cattle were placed in tame pasture on the same farm, and no more poison was noticed.

By some it has been supposed to have a malarious origin, and it has some symptoms that we have in congestive and other malarious diseases. If this be the cause, why do we not have animals affected with it in all malarial districts, and why not always have it when malarial diseases prevail, and at no other time? But this is not the case. On the contrary, we may have bilious, intermittent, remittent, and all of the diseases that are supposed to have malarial origin, and yet have none of this poison; or it may occur in midwinter, when none of the malarial diseases prevail. Moreover, if it had the same cause for its origin, it would be benefitted by the same treatment.

That it may have a malarial complication is undoubtedly true, as we have in almost all other diseases, and that it is the same poison may be demonstrated by many well substantiated facts.

The idea that it is any special vegetable has been many times exploded, and the toxicodendron, or poison oak, that has been so many times arraigned has proven innocent beyond a doubt.

While the exact locality has never been found, it has, many times, been brought down within a few acres. Near Troy, Ohio, at one time, it was enclosed in a four acre lot, and every plant that wore a suspicious look was closely scrutinized, till all became satisfied that there was no plant there that was not found in adjacent fields where stock grazed with impunity, and every vestige of toxicodendron was removed from the grounds.

Many times the babbling brook and crystal spring have been fenced up and doomed to solitary confinement because it was thought they held this poison in solution. But not till the fences have fallen down or decayed by age, and it has been found that the cattle could slake their thirst with impunity, has it been agreed that the suspicion was ill-founded, and no spring or water has been found that will produce the disease if stock be fed on healthy food. Cultivation certainly and effectively destroys the poison.

Dr. George Keifer, to whom I am indebted for many suggestions, related to me that a certain farm in Newton township, Miami county, which had

been abandoned on account of this disease, was bought by an Eastern man. After losing two members of his family and much stock, he took the precaution to cultivate his farm and keep his stock on tame pasture, and there has not been a case on that farm for the last forty years.

Probably the most plausible theory, and one that has not as yet been overthrown, is that the poison arises from uncultivated lands during certain conditions of the atmosphere, and settles over the vegetation and is eaten by the stock, and, meeting with certain other conditions in the stomach of the animal, the poison becomes developed, and that no plant or flower holds it to the exclusion of others. Thus it may be gathered in hay and stored away, and fed to stock in winter, as has occurred in some well authenticated instances.

Sheep indeed have fallen victims to this poison, when the ground has been covered with snow, by digging down and eating the grass.

When it is taken into consideration how little is positively known about this disease, it is not surprising that skeptics are found, who live in localities where it is never met, who deny that it is a specific disease. But let the skeptic get in the right locality at the right time, and he will soon have his doubts removed.

When we cannot discover with any real certainty the cause of the disease, the treatment must be somewhat empirical, however much men may object to empiricism. The treatment is varied according to the peculiar views the attending physician may have of the disease. Many empirics claim to have a secret remedy that is a never failing cure, if they can only see the patient before it is too late. If the patient happens to die, of course he got the remedy too late. To one of my patients one of these remedies was given by a friend of the family. When I was sent for, I found the remedy to consist of lobelia and whiskey. Of course, my patient had sick stomach then, beyond a doubt.

Dr. J. K. Knouff relies mainly on turpentine and whiskey, and has seen much benefit from this remedy. Others rely on calomel followed by castor oil and turpentine.

The first and greatest object is to arouse the secretions of the lower portion of the alimentary canal, and thus overcome the constipation.

The indications appear to be best met by the free use of citrate of magnesia, which makes a pleasant and agreeable drink, and is as well received by the stomach as any other drink, with a free use of enemata of warm water or something more stimulating. Let these be used in large quantities until the bowels are relieved of all hardened deposits. This may continue indefinitely until the indications are that the crisis is past and convalescence is established. Then with light, digestible food, and proper care, we may expect a good recovery. But the least exposure or exertion may bring on a

relapse, as occurred in the case of one of my patients when he thought he was well. On going to the field he attempted to pitch a load of hay, four weeks after the first attack, and it brought back the trembling and nausea, and he was compelled to desist until the cure was complete. Even at the present time, several years after the poisoning, he feels its effects when he becomes fatigued in warm weather. Many cases have gone through the disease, not certain that they have been poisoned by this scourge until they discovered their inability to stand the heat and exertion of a farmer's life. It is one peculiarity of the disease that convalescence is very slow.

The conclusions arrived at from a discussion of the subject are :

1. That it is a specific disease.
2. That it is a disease produced by taking a poison into the stomach with the food.
3. That it originates alone in wild and uncultivated lands.
4. That cultivation destroys it.
5. That the specific poison has not, as yet, been discovered.
6. That herbivorous animals are the first to be poisoned with it, and afterward it is transmitted to carnivorous animals and man, by their flesh and milk.
7. That no antidote has yet been discovered.
8. That there should be a more thorough and systematic investigation of this disease by post mortem and analytical examination.

HISTORY, TREATMENT AND RECOVERY OF A CASE OF PHTHISIS PULMONALIS.

BY L. D. BRYAN, M. D., WAPAKONETA, O.

May 27th, 1881, was called to see Miss F. B. R——, aged, 22 years; single; farmer's daughter.

History:—Miss R—— had enjoyed the best of health previous to March 12th, 1881, and weighed 132 pounds. She took sick on the 12th and was attended for the first few days by an Eclectic physician, who diagnosed "lung fever." A Homeopathic physician was then called, who certified the diagnosis of his predecessor. This homeopath continued to treat the case until the 27th of May, when, at that time, he gave up the case, declaring that the malady had changed to "consumption," and was "beyond human aid."

I.—7.—2.

The friends, not being satisfied with this prognosis, called me to see the case on the evening of the 27th, and after a careful physical examination and history of the case, I diagnosed phthisis pulmonalis of the pneumonic variety.

Symptoms.:—Patient's weight 77 pounds; constant cough with profuse expectoration of pus; pain in lungs; dullness on percussion over the greater part of the right lung and upper lobe of left; auscultation revealed confused inspiratory murmur with subcrepitant rales very distinct; respiration 33, temperature 103° Fr., pulse 128; great swelling and pain in lower extremities; suppressed menstruation; retention of urine for twenty-four hours at a time; constipation; total loss of appetite with acid and nauseous condition of stomach; ends of fingers very much clubbed with nails very convex and brittle, which condition she assured me did not exist prior to her illness; unable to help herself to change position in bed.

Treatment.:—Prescribed cod-liver oil and whisky three times daily, with fresh milk diet; twelve drops aromatic spirit of ammonia three times daily; chloral, q. s. to control irritation and promote rest.

May 30th, symptoms but little if any changed, except the stomach, which seemed to be better. Continued same treatment with tonic doses of quinine and a mild laxative. June 7th, symptoms unchanged except a little more strength. Continued same treatment. June 15th, symptoms unchanged except a stronger voice and appetite improved slightly. June 23d, temperature 102° ; other symptoms unchanged. June 30th, temperature 101° ; more strength; symptoms unchanged. July 7th, temperature 100° ; pulse 120; respiration 30; appetite better, some stronger; other symptoms unchanged. Discontinued quinine and ordered one drop of pure creosote in cod-liver oil three times daily; applied fly blister over chest. July 14th, cough and expectoration some less; other symptoms unchanged. July 22d, cough and expectoration some less. Added subcarbonate of iron three times daily. August 14th, strong enough to sit up in bed; weight 79 pounds; took patient in a carriage for a short drive; cough increased violently and large quantities of matter were expectorated; drove one and a half miles, when patient became so much exhausted that she had to be carried into a house in order that she might recuperate; administered wine and in one hour she was returned to her home. August 20th, cough and expectoration much less; increased strength; weight 81 pounds: sits in an arm chair half an hour. August 28th, cough and expectoration notably less; weight 85 pounds; appetite improved, strength greater, temperature 99° , pulse 108, respiration 28; can stand on her feet but can not walk without falling; sits in a chair an hour at a time twice daily. September 4th, cough and expectoration still less; weight 88 pounds; can walk across the room. Gave directions to have her walk about the yard, but not to fatigue. September 25th, patient

rides in a carriage a distance of four miles, and returns much fatigued; cough and expectoration very slight; temperature normal; weight 95 pounds. October 20th, cough and expectoration entirely gone, menstruation returned, appetite good for any kind of food, weight 102 pounds, rides and walks daily, and feels hearty.

Nov. 10th, patient continues to improve in every way; no cough or expectoration; weight 107 pounds, has no pain; appetite good; digestion and assimilation excellent; sleeps well; assists in light house-work. The treatment as inaugurated was steadily continued and I think it best to still continue it until she shall have gained her usual amount of flesh.

Will remark here that all unnecessary conversation with the patient during the first three months of the treatment was forbidden.

REMARKS ON TREATMENT.

It will be noticed that the happiest improvement in regard to the cough and expectoration, followed the use of creosote.

The use of aromatic spirit of ammonia seemed to render the very best result in counteracting the acidity and nauseous condition of the stomach; this was plain from the fact that, if it was left off for even a day, the stomach would resume its unnatural condition. The cod-liver oil at first was not tolerated well, but was persisted in and grew gradually less objectionable and no doubt but that it greatly assisted in the support of the system through the crisis, for the patient took thirteen quarts of it during her illness. Sweet milk, too, undoubtedly played no little part in nourishing the body. The chloral acted kindly in two essentials, viz: allayed irritation and prevented sweating.

The quinine perhaps did some good as a tonic.

I considered the blister as harmful as beneficial, on account of its annoying the patient, therefore discontinued it after one application. The subcarbonate of iron, in due time, seemed to produce the usual hematic or sanguine condition, as shown by the returning menses and increased force of circulation.

I record this case, not because of anything new in the treatment, but to illustrate what may be done by persistent and relentless treatment of each and every character of the malady. In this article I have stated only bare facts, without dilating on the subject, that my readers may have the pleasure of reflecting upon the pathology of the malady and the action of the remedies which I was led to use. As this was a typical case of the gravest import, I consider the recovery remarkable; for the gravity of the case was such that all the friends despaired of her recovery, and looked for dissolution from day to day for at least five months. The neighbors say that each and every time the church bell tolled, they thought it the announcement of her death. She

lives near a little town and says that she now feels as though she might live to see many of her good neighbors buried.

I may add that I have another case of the same disease, but of longer standing, under the same course of treatment, which I am happy to say is making a rapid recovery.

EXTERNAL PERINEAL URETHROTOMY.

BY THOS. H. HAMMOND, M. D., KICKAPOO CITY, KANSAS.

Franklin F——, an old miner 47 years of age, came from San Francisco, California, to St. Louis, Missouri, to be treated for an old stricture of the urethra. Had he known it he certainly could have been as well treated in San Francisco as St. Louis. He at first consulted a quack, who attempted to pass bougies, but, failing, said the case would probably require an operation, and that he could get a surgeon to operate for him. Mr. F—— did not like to invest in such a concern, and came to me.

I found the urethra very irritable and intolerant of instruments—probably the quack had handled him roughly. His constitution was evidently suffering much from the effect of the stricture. He looked to be much older than he was. One thing in his favor was that he was a temperate man. I feared renal disease, and therefore made a microscopic examination of his urine and determined that his kidneys were not much affected. I found one stricture about two and one-fourth inches from the meatus, which allowed a bulbous bougie No. 6 to pass; another, about five and a half inches from the meatus, too tight to admit the passage of the smallest whalebone bulbous bougie; indeed, I could not pass a filiform whalebone guide without making a more prolonged effort than I was willing to do on this occasion. After this examination my patient had a chill, followed by a fever, the temperature rising as high as 105° F., and the pulse to 120 per minute, small and feeble, with loss of appetite; the patient indeed was in a critical condition.

It was my intention to treat the strictures by gradual dilatation, at first with soft instruments, afterwards with the conical steel sound; but after the trouble above mentioned I thought the internal urethrotomy promised the best result, and only waited a more favorable condition of the patient to operate. Prof. E. H. Gregory advised against an operation in his ill condition.

His bladder was distended with urine, at times a little passing ("overflow," as designated by Thompson). I did not quite expect what happened, at least so soon. I refer to rupture of the urethra, behind the stricture, and

consequent extravasation of urine. This occurred some time in the forenoon, and I discovered it at my visit shortly after. The subcutaneous connective tissue of the perineum, scrotum, and penis was extensively infiltrated with urine.

Nothing now remained but to make a free incision and allow the urine to escape, and at the same time to divide the strictures, at least the deeper one; in other words, to perform external perineal urethrotomy. As soon as possible I got my instruments and invited Drs. G. M. Armstrong and L. H. Laidley to assist me. The urine was now slowly escaping from a small orifice in the perineum. The patient seemed to be moribund.

The patient was brought slightly under the influence of an anesthetic. I fully expected to be compelled to operate without a guide, but was very much gratified at being able to pass a filiform whalebone bougie. Over this I passed Gouley's catheter-staff down to the deeper stricture, and made a free incision of the perineum and scrotum in the median line, and transfixed each flap with a ligature in order that my assistants might the better hold the wound open for me. I then cut upon the point of the catheter-staff, dividing the deeper stricture and a portion of the urethra before and behind it, following the guide beyond where the rupture occurred.

The patient was better as soon as the operation was performed, and, to my astonishment, his appetite had so far returned next morning that he wanted beefsteak and tomatoes for his breakfast. Of course I allowed them. A few days afterwards I ruptured the first stricture with a No. 9 conical steel sound. This I did in the presence of Dr. Armstrong. I feared a permanent perineal fistula, but in a few days the patient told me that when he urinated a portion of it came from the meatus and in due time it all passed by the proper channel, the wound closing entirely. I should have said that after the operation the patient was able to retain his urine and get up and pass it—of course through the wound, the circular fibres about the neck of the bladder not having been cut.

About the fourth day after the operation I passed a conical steel sound, and repeated this every four or five days, and taught the patient to do this for himself at proper intervals.

It will be observed that a catheter was not tied in the bladder after the operation. American surgeons have justly abandoned that practice, Dr. Van Buren having taught us that we get better results without it.

My experience has taught me not to delay long without relieving the bladder when a patient having an old stricture is suffering from retention of urine. The urethra just behind the stricture is soft, and easily gives way. I draw off the urine with the aspirator, or small exploring-trocar and canula. I have used both and I believe I prefer the latter, puncturing just above the pubes.

NEURALGIA.

BY R. M. STEELE, M. D., RICHLAND, OHIO.

The word neuralgia means etymologically, nerve pain or nerve ache, the meaning of the term having reference to the most prominent symptom of the malady, which symptom renders the subject especially important from the excruciating agony to which it subjects its unfortunate victim. In this connection it may be proper to state that there is a wide diversity of opinion in regard to the nature of neuralgia pure and simple, one class of writers holding the opinion that it is a disease in the full sense of the term, having an ever present anatomical lesion appreciable or molecular, as its cause; the other class regarding it as a mere combination of symptoms without any such dependence on constant anatomical changes. This contravention of theories can easily be accounted for by considering the complex character of the nervous system in regards to both structure and function.

Conspicuous among the members of the first class we find Dr. Anstie, who defends his position by calling attention to the similarity existing between the pains of true neuralgia and those of locomotor ataxia, a disease which is from first to last an atrophic affection involving mainly the posterior columns of the cord, in which the posterior roots of the nerves are almost always deeply implicated. He also supports his theory by citing many other similar examples, some of which are the following :

1. Pains closely resembling those of neuralgia are frequently a part of the phenomena of commencing and especially of receding spinal paralysis. This author reports three cases of partial recovery from paraplegia, in all of which the patients remained for years the victims of a singularly intractable neuralgia of both lower extremities, one case extending through a period of nearly twenty years, finally ending fatally.

2. The position of neuralgia as an hereditary neurosis. This writer claims that when a child is born with a neurotic tendency, it stands about equal chances as between the development of neuralgia, epilepsy or asthma. It is a well recognized fact that any one of these disorders may be supplanted by either of the others.

3. The so-called neuralgic form of chronic alcoholism indicates its relationship to other central neuroses. The following quotation from Rosenthal indicates, to some extent, his view of the subject: "In many cases of prosopalgia, no organic changes were found in the nerves, but the number of these cases will diminish as microscopical examinations are more frequently made." The number of these quotations might be increased indefinitely, but the foregoing are sufficient for our present purpose.

Among those who entertain a view opposite to the one just given, may be

mentioned the late Dr. Niemeyer, whose professional standing very justly entitles his opinion to a careful consideration. He is inclined to the belief that when anatomical changes can be discovered they alone are not sufficient to account for the neuralgia. The same eminent author admits that in some cases of *tabes dorsalis* the changes of structure are merely molecular. Wherein is the consistency in admitting the presence of a molecular change in one disease, and denying it in another?

Neuralgic pains can frequently be connected with various local conditions, centric and peripheral. The principal centric conditions are, tumors at the base of the brain which press directly upon the Casserian ganglion, exostoses, aneurism of the internal carotid, etc. Those situated within the spinal canal include tumors of the cord, caries and cancer of the vertebra, localized meningitis, pressure from sclerosis, etc. The principal peripheral causes are, local lesions of the nerves, or of their sheaths, following traumatism, compression, laceration, inflammation, periostitis, and caries of the adjacent bones, especially of the bony orifices through which the nerves pass; stases in the venous channels adjoining the nerves and atheroma of the arteries, compression of the nerves by aneurisms, degenerate glands, enlargement of internal organs, foreign bodies, etc.

Neuralgic pains are also important factors in other states of the system, as in anemia, malarial and lead poisoning, syphilis and hysteria. A depressed state of the bodily functions induced by over-exercise, heat, care, anxiety, excessive venery and numerous other causes, predisposes to and intensifies an attack.

There are many highly instructive and important phenomena connected with neuralgia, especially when the fifth nerve is involved. Dr. Blandford has met cases in which the paroxysms of pain were followed by fits of insanity, the pain vanishing during the mental aberration to reappear when the mental balance was re-established. Dr. Maudsley reports the case of an able divine who was subject to attacks similar to those described above. Anstie mentions a case in which the pain was preceded by frightful dreams and great mental disturbances, the latter continuing through the entire attack and disappearing with the cessation of pain.

The anomalies of circulation, secretion and the disorders of nutrition and cutaneous eruptions, so frequently met with in neuralgia, are important events in the history of the subject under consideration. These conditions are the results of the irritation of the sympathetic nerve-fibres, which are intermingled with the sensory fibres. Reflex muscular contractions are also frequently observed.

In the diagnosis of neuralgia the physician should determine if possible whether the pain is the result of some local irritation or of some central morbid process; as a correct diagnosis is the only basis upon which he can hope

for a rational treatment and a clear and satisfactory prognosis. The following facts will ordinarily enable the physician to make an accurate diagnosis: Neuralgias of cerebral origin are accompanied by headache, especially of the forehead and temples. Branches of the fifth nerve supply the *dura mater*; hence the headache in prosopalgia. The pains are unilateral, and are of a lancinating, shooting, burning or tearing character. When the disease is due to cerebral tumors, vertigo, anesthesia, fixed or wandering pains in different parts of the body, paresis of various cranial nerves, and, later on, paralysis of the lower extremities, are observed.

Spinal neuralgias are nearly always preceded by paresthesiæ—sensations of cold, numbness, and formication in the fingers and toes. We also observe coexisting genital irritation; extreme sensibility to winds and moisture; ready fatigue; diplopia and inequality of the pupils. Hysterical neuralgias generally make their appearance after mental excitement, or hysterical convulsions, and are characterized by rapid modifications as regards situation and intensity. They are accompanied by other symptoms of hysteria. They are most frequently of cerebral or spinal origin. Mercurial and lead neuralgias are diagnosed by concomitant symptoms, and by their history. Syphilitic neuralgias are attributable to periostitis, or osteitis. When the pains are found in the mucous membranes, they are almost always to be looked upon as symptoms of central affections, or of hysterical seizures. Pains of peripheral origin may radiate to remote sensory nerves, and thus give rise to irradiated neuralgias. This is markedly true in those cases in which there is an abnormal excitability. To this category belong the pain in the shoulder in hepatic colic, the dorsal pain in cancer of the stomach, and the femoral pains in renal calculi. Arthritic neuralgias are observed only in old people, and are associated with swelling and stiffness of the joints.

Migraine is distinguished from prosopalgia by the gradual development of the pains, the shorter duration of the attacks, their much rarer appearance, the frequent vaso-motor disturbances, the unilateral dilatation of the pupil, the frequent occurrence of vomiting, and the absence of painful points which are usually replaced by circumscribed hyperesthesia. The pain in the former disease is of a dull, throbbing character, and, unlike that of the latter affection, is felt deep within the skull, and not in the distribution of special nerves. An attack of migraine rarely lasts longer than twenty-four to thirty-six hours, after which the patient is free from pain until another attack occurs. The two affections occurring in the same patient may mislead the physician unless he be on the alert. It is claimed that in prosopalgia, due to cerebral tumors, the painful points are absent. Neuralgia of malarial origin is easily detected by its periodicity and the presence of fever.

It frequently becomes necessary to diagnose neuralgia from other painful

diseases in the same situation. Thus, we will have to distinguish between sciatica and rheumatism of the muscles of the hip; also, between the former affection and periostitis of the femur. This can readily be done by remembering that there is absence of the painful points in rheumatism, and an elevation of temperature in inflammatory processes. Intercostal neuralgia may be differentiated from pleurisy, pneumonia, and other chest diseases, by the absence of the symptoms and physical signs peculiar to those disorders. The same is true of neuralgias occurring elsewhere.

The prognosis of neuralgia is always to be guarded. The form and situation of the disease, the age of the patient, the etiology, and many other considerations, greatly modify the prognosis. If the neuralgia be produced by syphilis, malaria, overwork, anemia, etc., it will generally yield to appropriate treatment. Those cases that are symptomatic of grave centric conditions, are most unfavorable as regards prognosis. Neuralgias that are developed late in life, are also very stubborn.

In the treatment of this malady in its various forms, we should endeavor to remove the cause if possible. The syphilitic forms are amenable to mercurials and iodide of potassium respectively, accordingly as they appear in the secondary or tertiary stage. Large doses of quinine are indicated in trigeminal neuralgia induced by malaria. In these, as in all other cases, we should endeavor to relieve the morbid excitability. This, however, is not always an easy task. Still we can in most cases afford our patients partial relief at least. Arsenic appears highly serviceable in severe and obstinate cases, developed in old age. It is also useful in periodical neuralgia. Aconitia is highly curative in trigeminal neuralgia, while gelsemium is considered valuable in dental and other facial varieties. Counter-irritation, electricity, nerve-stretching, excision of a portion of the nerve, etc., are occasionally resorted to. Hypodermic injections of morphia and atropia in the vicinage of the pain have proved successful. Bartholow says that deep injections of chloroform are more successful than the means heretofore used. This popular author reports permanent cures as the result of this mode of treatment. Iron is indicated in anemic patients. Other tonics are useful in debilitated conditions. Cold and warm packs and douches are recommended. The phosphates and cod-liver oil, muriate of ammonia, and strychnia are favorite remedies in some cases. Bromide of potassium, chloral, nitrate of amyl, and many other remedies are sometimes useful. The diet of the patient should be highly nutritious, and rich in the fatty constituents. Quiet and rest are of first importance.

TETANUS, CLINICAL MEMORANDA.

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The notes of a case I furnished Dr. Pooley will be found published in the OHIO MEDICAL JOURNAL for December, 1881. The case was mainly interesting from the unilateral manifestations of the disease, which did not become general until nine hours before death.

CASE SECOND.—Mr. H., aged 24 years, stepped on a nail Oct. 25, 1881, causing a punctured wound of the right foot at the root of the little toe, an inch posterior to its tarsal articulation. For some days the wound was sore and painful, but the disturbance subsided, as the patient supposed.

Monday, Nov., 2d, he complained of pain in the foot and neck, and consulted a physician, who prescribed a lotion of arnica. On the 3d, he went to his shop but suffered all day.

Friday, Nov. 4th, I was called to see him. The patient complains of stiffness of the jaws and pain in the neck, and cramps in the wounded foot. The jaws can be opened one-half an inch. The foot is extended and rigid, but the patient can move it, after some effort, both in flexion and extension. The wound is a little tender; pressure does not cause any more spasm. There is some rigidity of the neck, but it can, however, be forcibly flexed, or the patient can depress his chin. Ordered: chloral ʒij; fl. ext. Calabar bean ʒij; syrup, water, aa, ʒiij. M. Sig. A tablespoonful every three hours.

At 4 P. M., Dr. Pooley saw the case with me; condition not improved. Pulse 80; temp. normal. Made free incision over the wound, dividing tissues deeply into the sole of the foot. There was but the slightest amount of bleeding, even when encouraged with warm fomentations. The wound was dressed with lint, saturated with a solution of chloral. Ordered the former prescription to be given in tablespoonful doses every hour.

5th, 9 A. M. Temp. normal; pulse 96. Slept well all night. Little change in condition; can only say he is not materially worse. Ordered: fl. ext. Calabar bean, ʒij. Of this twenty drops are to be taken every hour. Directions for utmost quietude, darkened room, etc., were given. 3:30 P. M. Was called in great haste. Medicine has been given as directed. The rigidity of jaws and neck has increased. Patient is anxious and distressed; is sweating profusely. Pulse full and slow. Cannot observe any physiological effect of the medicine. There certainly has been no relaxation of spasm. Ordered: chloral ʒss; syrup, water, aa, ʒiij. M. Sig. A tablespoonful every hour in connection with the Calabar bean. 6 P. M. Skin dry and warm. Temperature 99°; pulse 108. Breathing natural. No improve-

ment of the spasms. Complains that he can no longer lie on side, because his back curves backward so much. Ordered: 30 grains of chloral and 30 drops of the fl. ext. Calabar bean, to be taken every hour; dressings to foot continued.

Nov. 6th, 9 A. M. Temperature 98. 6°; pulse 96. Has slept profoundly during the night, so much so that the medicine was omitted twice. Was nauseated at 8 A. M., when taking milk. There is more rigidity of muscles of back; jaws about the same. No evidence of suppuration about wound. Ordered flax seed poultice for it. Also directed the Calabar bean to be given, xxxv drops every hour, with a scruple of chloral. 12 M. Has been nauseated two or three times during the morning, and vomited twice. Becoming satisfied that the Calabar bean preparation was having no effect, procured another sample of which I ordered ten drops every hour. 4 P. M. Temperature normal, pulse 106. More rigidity of back. The dose of Calabar bean was increased to twenty drops hourly, and chloral continued. The patient is cheerful, and takes great interest in the examination. Complains of nothing but the rigidity of his back. 8 P. M. Patient is about as at last visit. I find his pupils are contracted.

Nov. 7th, 7 A. M. During the night, on account of vomiting, three doses of chloral have been omitted. Pulse 100, temperature normal. There has been spasmodic closure of jaws, which greatly alarmed the patient twice during the night. He protrudes his tongue freely between the teeth. I think there is a little more rigidity of muscles of back, and the contractions are increasing slowly. He evidently loses ground when chloral is suspended. Bowels have not moved from enema which was ordered at last visit. Urine high colored. Gave 40 drops of Sharp & Dohme's fl. ext. Calabar bean, and directed such doses every hour. 9 A. M. Patient's condition unchanged. 1 P. M. The pulse is 96, temperature 98.6°. Skin warm and moist. There is no disturbance of respiration. The jaws open better than since Friday. There is less rigidity of cervical and dorsal muscles. There is considerably more motion of the foot possible to the patient. The wound on bottom of foot does not suppurate. Medicine continued in same doses, till further orders. The case looks more hopeful. 6 P. M. Pulse 70 full, respiration 30. The spasm of the muscles of the back and neck is more intense. The muscles of the abdomen are hard, like a deal board. There is less spasm of foot. I cannot help thinking the patient is getting worse. The increase of muscular tension in spite of all medication seems to show it. Treatment continued.

Nov. 8th, 6 A. M. During the night tonic spasms of the neck and back came on. They now occur on the slightest irritation and are repeated every ten minutes, or oftener. Calabar bean was increased to fifty drops per hour; chloral forty grains every two hours. Pulse 120, temperature normal, respiration 30. Skin warm and moist, without much perspiration. 9 A. M.

Condition the same, except spasms are becoming more frequent. Treatment continued. 4 P. M. Tonic spasms more frequent, and the patient scarcely comes out of one before he falls into another. 7 P. M. Ordered 40 grains of chloral and continued the Calabar bean hourly. Temperature 100° , respiration 35. Medicine was given every hour, and the convulsions subsided till 9:30, when he had another. 10. P. M. Pulse 120, respiration 35. 11:05 P. M. Violent convulsions, when he raised himself in a bow on occiput and heels. 11:30. 60 drops Calabar bean. 11:40 P. M. chloral.

Nov. 9th, 12:10 A. M. Another violent attack of opisthotonos. 12:20 A. M. Another violent attack of opisthotonos; gave chloroform. 12:25 A. M. 60 drops Calabar bean. 12:45 A. M. Respiration 30 per minute, pupils contracted. Breathing became slow and suddenly ceased. Atropine, 1-48 grain, was given subcutaneously. In 3 minutes pupil began to dilate and the breathing was gasping. 1:30 A. M. Respiration 35 per minute; spasm. Gave 50 drops Calabar bean, and 20 grains of chloral. 1:45 A. M., pulse, 120; resp., 30. 2 A. M. Restless. 3 A. M. Spasm. 30 drops of Calabar bean. 3:10 A. M. Pulse, 84; temp., 100° ; resp., 30. 5:30 A. M. Pulse, 120; resp., 30. No rales in lung. Gave one dose of the bean, of 50 drops, as convulsions are coming on more frequently, and chloral every hour, 20 grains. 9 A. M. Resp., 30, pulse, 160. Gave whiskey in tablespoonful doses every half hour. 10:30 A. M. Pulse somewhat fuller and 140. Has a spasm every ten minutes. Is evidently near his end. 11 A. M. Had a sudden spasm, which the attendant said choked him, and he was dead.

This case makes five cases of tetanus which have come under my care, all of which have proved fatal. This is my second case this fall. Of my cases three have been females, two males. The causes, as far as obvious, were: Nail wound of foot in two; contusion of fingers of right hand between railroad car-bumpers, one; compound fracture of forearm, with protrusion of bones, and compound fracture of the right leg, by jumping from a buggy, by which both bones were driven, after the fracture, through the skin into the ground—one each. One case was treated with *Cannabis Indica*. This was before the introduction of Calabar bean and chloral. Two were treated with chloral, and two with chloral and Calabar bean.

There are some interesting features in the last case to which I would call attention. First, the enormous amount of Calabar bean employed, and its utter uselessness. Both samples of this drug were obtained from first-class houses, yet of the first 1115 drops were used; and of the second, 2033; with which no effect was produced beyond contracting the pupil. Second, the amount of chloral given. 1920 grains was quite enough to account for the drowsiness, and yet even when this was pushed to the fullest extent, no effects in mitigating the spasm were observed. The slight remission the night before he died was due indirectly to the exhaustion of the motoricity of the

cord, rather than from any thing else, as was evident from the sudden relapse. Third, the almost instantaneous effect of the atropia as a respiratory stimulant. Fourth, the contracted condition of the blood vessels of the foot, which prevented any bleeding when the incisions were made; and undoubtedly the want of subsequent suppuration of the wound, although encouraged by poultices, was due to the same thing. Liston, years ago, called attention to the fact that the amputation of the limbs of patients suffering from tetanus, was followed by almost no hemorrhage.

It is useless to say that the drugs used did not have a fair trial, and it is equally evident that they did no good. Indeed, their utter uselessness in controlling the spasms was quite marked, although the full physiological effect was obtained.

Cases of tetanus have been reported where recovery has taken place under treatments of the most diverse kinds, from teaspoonful doses of whiskey to amputation; but the fewness of the cases seems to justify the declaration of an old army surgeon: "Young man, I have seen many cases of tetanus: most of them died, a few recovered. I rather think that those which recovered did not have tetanus."

SELECTIONS.

OBSTETRICS.

ACCIDENTAL ANTE-PARTUM HEMORRHAGE.—Dr. E. L. Partridge, of New York, contributes to the December number of the *New York Medical Journal and Obstetrical Review* an article in which, after briefly reviewing the current doctrines concerning so-called accidental hemorrhage preceding the birth of the child, he boldly challenges the expediency of the practice of rupturing the membranes. He believes, first, that rupture of the membranes does not meet the indications—i. e., it does not in itself or in its results offer any reasonable probability of checking the hemorrhage—and, secondly, that the method is highly dangerous from the increase of facilities for loss of blood, and because it adds to the difficulty and danger of the proper subsequent steps in treatment. As to whether it really does check hemorrhage, it can not do so unless a decided decrease in uterine bulk can be secured and maintained thereby. There must, therefore, be a considerable number of cases in which, a small amount of liquor amnii being present, and the reduction in size being very slight after its escape, no benefit can accrue. In

cases which present an average amount of amniotic fluid, after its evacuation the uterus is decidedly, though not greatly, diminished in size. What is to show, however, that this decrease is sufficient to close the mouths of bleeding vessels? There is no practitioner who cannot affirm that alarming hemorrhage does often threaten after the birth of the child, and before or after the complete separation of the placenta, when the uterus is *greatly contracted*. Even this degree in the reduction of bulk fails to close the uterine sinuses in the intervals of contraction. All those writers who advise rupture of the membranes couple with this advice the information that there is danger of continued hemorrhage. One says, "Of course there is risk," while all suggest methods by which they think a loss and a large accumulation of blood can be prevented after the escape of the amniotic fluid—these suggestions looking toward the maintenance of contraction. Accidental hemorrhage usually takes place prior to or during the occurrence of infrequent and slight early uterine contractions, when the os is slightly dilated or not at all. Superadded is the condition of collapse. If the liquor amnii is now permitted to escape, can any candid, practical obstetrician admit, the author asks, that there is any known way by which a momentary reduction of uterine bulk can be maintained for a period which will check an alarming hemorrhage? The uncertainties and tediousness of efforts at excitation of the uterus in cases of induction of labor afford a good illustration of the difficulties which would be encountered. Ergot is uncertain and almost valueless, for the stomach will either reject or fail to absorb it; or, if absorption does take place, or if the drug is given by the hypodermic method, its action is imperfect when there has been a great drain upon the vital powers. The abdominal binder cannot be applied in a way to crowd the resilient uterine tissue into contraction. Manual efforts can not be kept up with any precision or efficacy during a period necessary to check the hemorrhage and keep it in control. Good uterine action cannot be excited when the uterus is surprised into labor. Good labor-pains will not occur if the patient is exsanguinated. The suggestion of Leishman, to the effect that the placenta will be compressed between the uterus and the child after the escape of the liquor amnii, and hemorrhage thus be checked, is, Dr. Partridge thinks, fanciful; for no sufficient uterine action will take place to effect this. There are a great many chances also that the part of the child nearest the placenta would not be one which could make an even, perfect compression, if suitable uterine action did take place. Far from meeting the emergency, the method greatly increases the dangers. If the uterus does not contract promptly and permanently after the escape of the liquor amnii, an ample space is afforded for a further extravasation of blood. A very limited space will afford room for a dangerous extravasation. Another danger is from a more extensive detachment of the placenta when the uterus is even temporarily contracted. An-

other objection to the early removal of the liquor amnii in accidental hemorrhage is, that an obstacle is created to the use of the most efficient method of securing dilatation of the os—i. e., by the dilators. Their use would be improper, lest, acting also as a tampon, they should prevent egress of effused blood, and add to the accumulation. A fourth danger will be from the increased difficulty encountered in the performance of version if the child is not surrounded by liquor amnii. This operation is often imperatively demanded in the treatment of accidental hemorrhage, under circumstances, too, when its ease of performance is of great importance. There is one class of cases of accidental hemorrhage in which the amount of blood lost does not fully explain the degree of shock. In these the factors in the production of collapse are the over-distension of the uterus and consequent irritation of the peripheral nerves of that organ, as well as the abstraction of blood from the circulation. Here, then, we might believe, was found sufficient ground for the treatment by early rupture of the membranes, relieving thereby uterine distension and the resulting irritation to the nervous system. Upon consideration, however, we find, first, that it is impossible to prejudge in these cases. It is only *after* delivery, when the amount of effused blood can be estimated, that we discover that the shock was proportionately greater than the hemorrhage. Again, collapse brought about in this way does not obstinately refuse to yield to treatment, but will be remedied usually by the customary methods, such as stimulants, the application of external heat, etc., without the need of any decided local interference. Finally, this variety of the accident is not very common, as indicated by clinical records, the possibility of its occurrence being so lightly regarded as hardly to be mentioned by writers. What, then, should be the treatment looking toward the safety of mother and child when immediate delivery cannot be resorted to, owing to incomplete dilatation of the os? By all means *preserve the membrane intact*, and thus tampon the uterine cavity with liquor amnii. Then, in the great majority of cases, employ Barnes' dilators until the desired result is obtained. Of course, this or any similar treatment must be employed at a suitable time. It must not supersede efforts for the relief of collapse, and it may be necessary to defer all operative measures until the patient can be rallied from the alarming constitutional symptoms. The os being sufficiently dilated to enable delivery to take place, rupture of the membranes is proper, and should be followed by manual efforts to compel the uterus to descend upon the child, whose expulsion should be immediate. Version fulfills the indications better than the forceps, as by the former operation there is less danger from delay during delivery, and because it can be successfully resorted to at an earlier period in the dilatation of the os than the forceps can. Bimanual version should not be considered for a moment, as in cases apparently most favorable it cannot always be accomplished, while in this accident the irreg-

ularity of the internal uterine surface caused by the collection of blood would certainly interfere with the change of position of the child. During the entire time stimulants must be freely used and warmth to the surface, and in exceptionable cases, when the hemorrhage does not appear to be continuing, it is proper to wait for returning vitality before operative measures are undertaken, lest the condition of collapse be aggravated. The danger is not necessarily over after delivery, for it is often difficult to bring about reaction from the dangerous condition, and convalescence will often be slow.

THE BEST POSITION FOR WOMEN IN LABOR.—Dr. Geo. J. Englemann (*Trans. Amer. Gynec. Society*, 1880) after a careful study of this subject, reaches the following conclusions: (1) In ordinary labor cases the patient should be permitted to follow the dictates of her natural instincts in regard to her movements, at least more freely than is customary. (2) In the early stages of labor the patient must be guided in her actions, and position, by the dictates of her own instinct. This is the invariable rule among savages, and has also been warmly advocated by the shrewd and observing obstetricians of the past, and by the practical and successful midwives of old. (3) The parturient women of uncivilized people avoid the dorsal decubitus, the modern obstetric position, at the termination of labor, which is sufficient evidence that it is an undesirable position for ordinary cases of confinement. Dr. E. is convinced that obstetricians will soon confirm the statement made by the ignorant but observing savage, that the recumbent position retards labor and is inimical to easy, safe and rapid delivery. (4) In the ordinary labor cases the expulsion of the child should be expected in an inclined position; kneeling, squatting, or semi-recumbent, in bed or lap, as is done by the great majority of uncivilized people, for the following reasons: (a) Those positions permit the free use of the abdominal muscles. (b) The force of gravity does not counteract the expulsive effort, as in the recumbent position, nor does it unite too freely and hasten labor unduly, as in the erect posture. (c) With the assistance of a rope, stake, or other support, the parturient can vary the inclination of the body and correct the labor, by hastening or retarding the descent of the child and relieving the pain, changing the axis of the body and throwing the fetal head towards the sacrum or symphysis. (d) Injury to the soft parts is less likely to occur in these positions, if we may accept the rapid getting up, and freedom of Indian squaws from all uterine diseases as proof of this statement. (5) Of these positions the semi-recumbent is the most serviceable, and should be adopted in all ordinary cases. It is preferable to the kneeling or squatting: (a) As being more convenient and comfortable, and not being objectionable to the modesty of the patient. (b) As not being tiresome, which is a serious objection to the kneeling and squatting positions as applicable to the civilized

female. (c) The semi-recumbent position in bed, with the body at an angle of forty-five degrees, the hips resting on a hard mattress and thighs well flexed, is the easiest and most comfortable, and appears to afford the greatest freedom from pain, coupled with the greatest effect of the uterine contractions, with relaxations of all the parts and free play of the abdominal muscles. (d) The pelvis is more readily fixed in this position. (e) The perineum has a certain support which does away with the questionable proceeding of supporting the perineum during the expulsion of the head and shoulders, by which more harm than good is usually done.

PREGNANCY AT ADVANCED AGE.—Dr. J. E. A. Ball, Biard, Texas, (*Medical Brief*, November, 1881), reports the case of a negro woman who gave birth to a child at the age of sixty. The age of the mother was authenticated by the record of her birth, in possession of her former owner.—*Chicago Med. Review*.

GENERAL RESULT OF PORRO'S OPERATION.—Prof. Simpson, of Edinburgh, concludes a clinical lecture on Porro's operation as follows. If we look at the general result of all the cases we have brought together, we see that thirty mothers were saved and forty-two lost; and fifty-seven children were saved and fourteen lost; whilst the condition of the children in one of the cases is unknown. This gives a total of eighty-seven lives spared and fifty-six lost. If the patients had been delivered by some of the head-crushing procedures, then all the seventy-two infant lives would have been sacrificed; and with the usual loss of about one in five mothers, there would have been at least fourteen maternal deaths, that is to say, at least eighty-eight of the one hundred and forty-four would have been lost and only fifty-eight saved. The proportions would nearly have been reversed.—*Brit. Med. Journ.*

SURGERY.

TREATMENT OF GONORRHEA.—Dr. Morris, of Kentucky, in the *Medical Herald*, says: Early after I graduated, I was disappointed in the treatment of this disease, both by astringent injections and the internal administration of remedies; and, as I had a large number of cases coming to me, I made an effort to secure a treatment giving more satisfactory results. In my series of experiments, I purchased a "Bartholow's Catheter," an instrument with an olive bulb on the point, and holes in the shoulder of the bulb—the point not being pierced. The tube being the size of a No. 6 catheter, the bulb being much larger, prevented an outward flow of the injected fluid, and caused it to flow backward and outward. I attached this to a good "pump syringe,"

by rubber tubing, and the next case I treated gratuitously, for the privilege of using my new machine. After throwing in about a gallon of cold water, I took a small penis syringe, and gave an injection of sulphate of zinc, as thorough as possible, and told my patient to call again next day. I saw no more of him for a month, and then "blew him up" for not coming around and taking more of the treatment. He replied, that as it cured him, he thought there was no use, and never thought any more about it. Holding the theory of the limitation of the disease, as given by Bumstead and other authorities, I had no faith in the result of this case, and determined to give it a further test. I reached the following result, astonishing as it may appear. Out of twenty-five cases, twenty-two were entirely well twenty-four hours after treatment. No treatment of any kind was given, other than washing out the urethra, and the sulphate of zinc injection first and once only given. One was well in three days, one in seven days, and the other a drinking man who kept up his whoring all the time, was cured in two weeks. After this, in fifteen cases, the result was not so satisfactory, but much more so than with the old treatment.—*So. Med. Record.*

SIGISMUND reports a case in which a small splinter of wood remained in the eye for forty-seven years without any disturbance.

NEPHRECTOMY.—Thus far 54 operations have given 26 successes—28 failures. The lumbar incision gives better results than that in the linea alba.

LIEBIG'S CORN CURE.

Extract of cannabis indica.....	5 parts.
Salicylic acid.....	30 "
Collodion.....	240 "
Mix and dissolve.	

It is applied with a camel-hair pencil, so as to form a thick coating, for four consecutive nights and mornings. The collodion at once covers and protects the corn from friction. The Indian hemp acts as an anodyne, and the acid disintegrates the corn, so that after a hot bath on the fifth day, it will come out, adhering to the artificial skin of collodion on the toe. This causes no pain, and is said to be very effective.—*Drug. Circular.*

BACKACHE.—Constant backache (not rheumatic, but a sense of intense aching in the *erectores spinæ*) is often relieved by keeping a hard cushion in contact with the back while the patient is sitting or lying. This gives support and comfort; but to give permanent relief regular and methodical exercise is very essential—especially, exercise of the spinal muscles.—*Brit. Med. Journal.*

OVERGROWTH OF THE ULNA.—A peculiar deformity of the arm was noticed by Mr. Pye, caused by a growth in length and thickness of the ulna. The arm was strongly curved and the wrist distorted. To relieve the deformity the radius and ulna were divided subcutaneously, the radius at right angles and the ulna obliquely, and the arm then kept straightened by splints. The usefulness of the arm returned, but the ulna is again growing. The subject of the deformity is a boy in excellent health, and with good personal and family history. He is subject to bony growths, as shown by bad exostoses that have been removed. There is no evidence of inflammation of the ulna, and the increase in size seems simply due to excessive nutrition.—*Brit. Medical Journal*.

A case is reported in the N. Y. *Record*, of pigeon or hen-lice infecting the human subject. They inhabited the sweat pores, and were crowded out when the patient was made to perspire freely. This fact indicated the treatment.

THE VALUE OF REPEATED PARACENTESIS ABDOMINIS.—Dr. Duncan declares that frequent tapings of the abdomen in cirrhosis of the liver may be curative. One case he narrates where the tapping was as frequent as every eight, ten, and fourteen days for several weeks. As often as a decidedly perceptible quantity of fluid would accumulate it was drawn off. The cases he narrates were apparently benefited by the treatment. *Brit. Med. Jour.*

DISLOCATION OF THE STERNAL EXTREMITY OF THE RIGHT CLAVICLE—SUCCESSFULLY TREATED.—Dr. Walker, of Mason City, Ills., reports the case in the *Peoria Med. Monthly*. The patient was a muscular young man, who met with the accident while engaged in a fight. The doctor^s treated it with adhesive straps as follows: "First a strip three and a half inches wide and twenty inches long, was well heated and applied to the skin, about two inches above the clavicle, it (the bone) being kept in position, then smoothly and firmly over the bone itself, then to each rib carefully, as it reached them downwards and outwards, about fifteen degrees, until all of the ribs on that side were brought under complete control of this strap; then I added three other narrow strips to guard the main one; applied a broad bandage to the whole chest, as in fracture of ribs, and completed dressing with Fox's apparatus for fracture of the clavicle."

The dressing was allowed to remain unchanged until the end of the ninth week. Finding every movement perfect, with no deformity, the dressing was removed. The doctor believes the cure is so perfect that experts could not say which shoulder was affected.

AN OPERATION FOR PROMINENCE OF THE AURICLES. By Dr. Edward T. Ely (*Arch. of Otol.*, Vol. X., No. 2).—The description of the operation being a short one I will quote Dr. E.: “An incision was made through the skin along the entire length of the furrow formed by the junction of the auricle with the side of the head posteriorly. This was joined at each end by a curved incision carried over the posterior surface of the auricle, and the skin and subcutaneous tissue included by these incisions were dissected off. Two incisions, nearly parallel to the prominence, were then carried directly through the cartilage and an elliptical piece of the latter, measuring $1\frac{1}{8}$ inch by $\frac{1}{3}$ inch, was removed. The piece of excised skin was considerably larger than this. The edges of the wound were then united by ten sutures, of which seven only included the skin, while three passed through both skin and cartilage. Owing to the natural folds of the cartilage, it was impossible to secure perfect coaptation of the anterior surface of the auricle, and a small piece was here left to heal by granulation. The dressing consisted of absorbent cotton and a bandage. . . . Healing ensued without accident.—*Chicago Med. Jour. and Exam.*

THE JUICE OF *OXALIS ACETOSELLA* AS A CAUSTIC.—Dr. Edgar Eltinge, in a paper on this subject (*Annals of Anatomy and Surgery*) giving his personal experience, says:

“The *Oxalis acetosella*, familiarly known as wood-sorrel, possesses marked caustic or escharotic properties heretofore either unnoticed, untried, or unadmitted by the general profession, although it has formed the essential ingredient of the pastes used by some empirics.

“The expressed inspissated juice of this plant, properly formed into a suitable paste, I have successfully used as a local application in the removal of an epithelioma of the lip occurring in my own person. This had gradually and slowly enlarged, with alternate abrasions and partial healings, until it had become an inflamed, burning, painful, and offensively ulcerating tumor, attended with tumefaction of the sublingual, right parotid, and right tonsillary glands, with copious salivary flow and an inordinate sebaceous secretion which was almost unendurably offensive.

“The best surgical advice recommended excision by the knife, but with an unfavorable prognosis.

“My first trial was had with the zinc chloride paste of Canquoin, with which I had successfully operated several years before upon one whose ability to endure pain was commendable; but when used in my own case it aborted on account of the excessive hemorrhage which its use provoked, a small portion only of the tumor being removed.

“After a delay of two months, no especial good resulting, I was prompted to make a trial of *Oxalis acetosella*. Three successive applications were

made, at intervals of twelve hours each, which were entirely sufficient to destroy the growth; the resulting eschar separated on the eighth day, leaving a healthy granulating surface which rapidly healed. Not a drop of blood issued throughout, the contrast in this respect with the effect of the zinc paste being marked. The glandular tumefaction rapidly subsided, and now, at the end of two years, I still remain free from any signs of recurrence.

"I found the pain produced by the application of this caustic to be intense, demanding all my fortitude to enable me to endure it. The duration, however, did not exceed half an hour after each application,—a period during which it would be quite practicable to maintain general anesthesia in patients requiring it."

RELATION IN THE CONFORMATION OF THE BRAIN AND EYE.—Dr. Landolt, Paris, makes this conclusion in the *Brit. Med. Journ.*, on the relation between the conformation of the brain and that of the eye. In asymmetry of the cranium, characterized especially by flatness of one-half of the forehead and lateral curvature of the median line of the face, together with inequality of the two halves of the chin, there is generally onisometropia. The eye of the side which is less developed presents the lower refraction.

COLLODION IN THE TREATMENT OF SPRAINS.—Dr. Blodgett, after considerable experience, finds that collodion is an excellent application in the treatment of sprains. The remedy is applied in solution, several layers being painted over the sprain; the collodion dries rapidly, and in so doing contracts in such a way as to diminish to a very considerable extent any swelling which may have previously existed. It seldom causes any irritation of the skin, it does not interfere with the circulation, and it never endangers sloughing. Dr. Blodgett has never noticed puffiness or swelling about the toes or any part beyond the ankle when the application has been made to that joint, although the contraction produced by the collodion was very powerful around the ankle itself. This treatment is also admirably adapted for those troublesome cases in which there is an open wound at the seat of the sprain, since the collodion forms an impervious covering over the wounded surface. After some hours the film of collodion cracks; it may then be easily peeled off, and a new film should be applied immediately to the same spot. By this means all the benefit of a fresh compression of the parts is at once obtained, and the treatment may in this way be indefinitely continued. Before applying the collodion it is advisable to gently wash the affected part with soap in order to remove any oil or greasy matter which might decompose beneath the film and irritate the skin, or might prevent the collodion from adhering.—*Boston Med. and Surg. Jour.*

THAPSIA.—None of the recent discoveries in therapeutics has received so prompt a recognition as thapsia. The remedy introduced by Dr. Reboulleau, of Algeria, M. Perdriel, of Paris, is derived from a plant growing in Algeria, where it is called Bounefa—its botanical name being *Thapsia garganica*. It is extremely serviceable in abdominal troubles, bronchitis, pleurisy, and rheumatic pains. It possesses rubefacient action when applied in the form of a plaster, and its application is followed by a very abundant miliary eruption. It acts more rapidly and certainly than croton-oil, whilst it is readily applied and is free from the inconvenience which attends the use of other local applications.—*Le Concours Medical—Practitioner*.

CALABAR BEAN IN TETANUS.—J. Thompson Hague, L. R. C. P. and S. Edin, Late Medical Officer to H. H. the Sultan, Zanzibar.

The patients were all negroes, treated in the Zanzibar Military Hospital during 1879 and 1880.

Case 1. Mohammed was brought into the hospital on the morning of November 30th, in an exhausted and apparently moribund condition, having suffered from tetanus for fourteen days previously. When he arrived at the hospital, the spasms were so frequent as to be almost continuous. He was bent nearly double, and had bitten his tongue so that the end was almost dropping off. In order to allay the spasms caused by his removal upstairs into the ward, I administered chloroform. During the inhalation the spasms ceased; but as soon as the effect of the anesthetic began to pass off, they returned with all their former violence. One-sixth of a grain of extract physostigma was then given by subcutaneous injection. Two sharp spasms followed, but in eight minutes these had ceased, and the patient fell into a deep sleep, which lasted three hours. When he awoke the patient was in all respects much better. He drank half a pint of beef-tea, and bore an enema without a spasm. Afterwards he took beef-tea and milk at intervals, and slept most of the day. Next morning, as the spasms had commenced again, I administered the Calabar bean as before, with the result of checking the spasms entirely. Nourishment was taken eagerly during the day, and the patient seemed convalescent.

On the following morning, the patient was sitting looking through the window, when he was seized with a spasm; his breathing was stopped, and he died almost instantly. I was not present, but from the account given by two of the hospital assistants, I think death was doubtless caused by spasmodic closure of the glottis.

CASE 2.—Simba was admitted into hospital on February 8, 1880, having been stabbed in three places. The bowels protruded from a wound in the abdomen, and there were incised wounds of the scalp and of the left forearm. All the wounds were treated with silver sutures, and a dressing of carbolic

lotion, and until the ninth day all went well. On that day there was pricking pain in the scalp wound, which was seen to be dry, gaping and inflamed. The sutures were removed, and water-dressing applied. During the night tetanic symptoms were observed; and when I saw the patient in the morning, he had very frequent violent spasms. All the sutures were removed, and one-sixth of a grain of extract of physostigma was injected into the calf of the leg, under chloroform. On the withdrawal of the anesthetic the spasms were much less violent than before; but as they had not entirely ceased, the injection was repeated at the end of an hour, and with such good effect that there were no tetanic symptoms until evening. I then repeated the injection. After this there were no symptoms of tetanus; but the Calabar bean was given once a day for the next three days, as a precautionary measure. The patient was discharged cured at the end of twelve days.

CASE 3.—Abdallah was admitted May 4, 1880, suffering from frequent and severe tetanic spasms, which were judged to be excited by a nearly healed incised scalp wound, which had been treated by a native medicine man with powdered bluestone and incantation. One-sixth of a grain of extract of physostigma was given, under chloroform. The spasms returned in twenty minutes; and in an hour the injection was repeated, but the severity of the spasms increased. Twenty-five grains of chloral were given, but met with no more success than the Calabar bean. In the evening I made an elliptical incision on each side of the cicatrix, and repeated the injection. There were several spasms during the night, but each was less severe than its predecessor. In the morning the usual injection was given; and after this there was no more sign of tetanus than occasional twinges of the muscles, and once or twice spasm of the glottis in swallowing. At the suggestion of one of the surgeons of H. M. S. *London*, I removed the cicatrix, lest, when it became again united to the rest of the scalp, it should give rise to the same symptoms as before. The wound granulated, and the patient was discharged.

As these three cases form the sum total of my experience in the treatment of tetanus, I have no claim to be didactic, or to dogmatize as to the course to be pursued by others who may have charge of similar cases; but there are two or three points of interest which induce me to publish these notes.

In the first case, emprosthotonos was one of the symptoms, which is so uncommon an occurrence, that Mr. Holmes says he has never spoken to any one who has seen an example of it.

In case 3, no remedy that was tried seemed to be of use, until the irritating cicatrix was isolated by incisions. In case 2, the scalp wound appeared to become unhealthy before the commencement of the spasms. In each case, the action of the Calabar bean in subduing the spasms was beyond dispute.

The preparation used was in the form of gelatine discs, each containing one-sixth of a grain of eserine, and was supplied by Messrs. Savory & Moore.—*Bost. Med. Jour.*

[This report is of special interest in connection with the papers on the same subject contained in our last and present issues. J. F. B.]

TREATMENT OF HYDROCELE.—J. S. Wight, Prof. of Surgery at the Long Island College Hospital.

After the administration of an anesthetic, the sac is penetrated in front, near the lower part, by a long curved bistoury, whose point is brought out of the sac in front near the upper part, making two openings in the front wall of the scrotum, through which the hydrocele fluid can be evacuated, while the bistoury is uniting them into one general anterior opening into the sac. This operation is very rapidly and easily done, and it is not often that a blood vessel has to be ligated.

The testicle is carefully examined; it is left in place if healthy, and removed, if it is diseased so as to make such procedure necessary. And if, as I have sometimes seen, there is gelatinous fibroid material about the testicle, it is carefully removed with a pair of scissors. The cavity may be washed out with a two per cent. carbolic solution, and then packed with oakum containing carbolized oil, which can be kept in place by a bandage. This oakum must be left in for two or three days, or until more or less supuration takes place, so that it can be removed easily without injury to the young granulation tissue, and without causing any bleeding. After this, the wound of operation may be dressed with oakum, from day to day, the waste products being carefully removed, till scar tissue is formed, and the sac is obliterated, which generally occurs in a few days.

This operation has a number of advantages; for instance:

- 1st. A patient is sure to have a radical cure.
- 2d. It is one of the safest operations I have ever performed. All the cases I have ever operated upon have not had any unpleasant symptoms, but have done well. I am inclined to consider this method of the radical cure of hydrocele as safer than any method of radical cure by injecting the sac with an irritating fluid in order to cause inflammation and adhesion. In operating by injection, I have found the general disturbance at times very marked, and have had to open the sac by a free incision, just as it is necessary to open an abscess. In such a case the free opening had better have been made in the first place.

It is a fact that open wounds properly treated do well, since there is an unobstructed exit for waste products, and less infiltration and tension on the tissues.

One of the most important advantages in this plan of treatment consists in

the fact that a testicle may be so diseased as to require removal, and that it can be readily found out, when there can be a complete inspection of the organ after being laid bare. Any one can see the perils of acute inflammation in the serous and peri-serous tissues around a diseased testicle. I have more than once been obliged to remove a diseased testicle, after having performed the operation for radical cure of hydrocele by incision. In such an event the patient has to submit to only one operation, and that a comparatively safe one.

5th. The patient suffers less pain during the repair of the scrotal tissues after this radical operation, than during the inflammation following an injection operation due to the tension of infiltration—plastic or purulent. My attention was called to this point in a forcible manner by the following case: A man about sixty years of age, and whose health was not very good, had a hydrocele tapped by me with an exploring needle—the hydrocele fluid escaping slowly along the groove of the needle; acute inflammation supervened, and brought about a radical cure; but the pain was very great, causing my patient extreme suffering, and putting him in imminent peril.

I have treated other sacs, such as the pre-patellar bursa, and the compound ganglion of the flexor and the extensor tendons of the wrist, in a similar manner, with gratifying results. I have reported two cases of compound ganglion of the wrist treated on this plan. To this I add the following case:

In the month of June, 1881, I operated upon a case of compound ganglion of the sheath of the common extensor, and the extension indicis of right wrist of a lady who had an unsuccessful operation performed at a previous time. I made two openings and completely evacuated the fluid and the fibroid bodies from the sac, washing out the sac with a strong carbolic solution. This patient has quite completely recovered, the sac being obliterated and largely absorbed. The motion of the parts appears to be as good as ever.

There is, however, one point of difference in the treatment of these compound ganglia, as compared with that of hydrocele. In order to save the integument and make the scar tissue as small as possible, two openings are made into the sac of the compound ganglion, while in the sac of hydrocele one large opening is made. Also, in the case of compound ganglia, it is important to keep up constant and careful passive motion.—*Reporter*.

MEDICINE.

CHRONIC GENERAL PERITONITIS.—In the December number of the *New York Medical Journal*, Dr. Carroll, of New Brighton, records an interesting case of chronic general peritonitis, which seemed to take its origin in an old pleurisy on the left side, the inflammation passing through the diaphragm and

causing at first a perihepatitis, or perhaps an intermediate perisplenitis. The case exemplifies a condition that has been classed among the curiosities of medical experience, for chronic general peritonitis, independent of tuberculosis, is either ignored or its existence denied by most writers, save as a protraction of an acute purulent attack, and the few who recognize its existence differ as to its pathology and clinical history.

DR. J. MILNER FOTHERGILL ON USE OF MALTINE.—In order to aid the defective action upon starch by the natural diastase being deficient in quantity or impaired in power, we add the artificial diastase “maltine.” But, as Dr. Roberts points out, in order to make this ferment operative, it must not be taken after a meal is taken. Rather it should be added to the various forms of milk porridge or puddings before they are taken into the mouth. About this there exists no difficulty. Maltine is a molasses-like matter and mixes readily with the milk, gruel, etc., without interfering either with its attractiveness in appearance, or its toothsome-ness; indeed its sweet taste renders the gruel, etc., more palatable. A minute or two before the milky mess is placed before the child, or invalid, the maltine should be added. If a certain portion of baked flour, no matter in what concrete form, were added to plain milk, and some maltine mixed with it, before it is placed on the nursery table we should hear much less of infantile indigestion and mal-nutrition.—*From the Practitioner.*

IN CHRONIC BRONCHITIS OF OLD PEOPLE.

R.	Ammonia carb.....	grs. 30.
	Spts. etheris.....	3 3.
	Tr. scilla.....	3 2.
	Tr. camphoræ co.....	3 2-4.
	Tr. cavandulæ co.....	3 6.
	Infus senegæ.....	ad. 3 8.

• M. Sig.—Two tablespoonfuls every four hours.

Med. Gazette.

METHOD OF INTRODUCING FOOD AND MEDICINE BY THE NOSTRILS.—M. Fernet proceeds as follows: The patient being laid on his back, a little raised, the end of a spoon, or, better, the spout of a close vessel, is brought near to one nostril, and its contents poured in gently at intervals. The liquid slides over the floor of the nasal fossæ and the roof of the palate, and reaches the pharynx, where it induces movements of regular deglutition. If the operation be well done the liquid never returns by the other nostril. This method may be applied in certain cases of apoplectic coma, when the patient cannot drink for three or four days successively, in the tuberculous meningitis of children, etc.—*London Medical Record.*

ASYLUM FOR INSANE OF EUROPE.—As a result of his observation, Dr. Geo. M. Beard makes the following conclusions: (1.) In the methods of supervision and in general care of insane, in public and private asylums, Great Britain has been easily first of all nations. (2.) Some method of governmental supervision of the insane appears to be universal, both in Great Britain and on the Continent. Of the four great countries, the United States appears to be alone in compelling the insane to depend exclusively upon their attendants and superintendents and local trustees. (3.) In the best asylums of Europe, mechanical restraint is reduced to a very small percentage, and instead of restraint labor is employed as a therapeutic agent. (4.) In the best asylums of Europe, the insane are treated much like children. (5.) The best asylums of Europe are not enormous or imposing buildings, but a series or collection of small, or moderate sized, unimposing cottages or houses. In Europe, as in America, alienists began by placing the insane in gigantic palaces, and there, as here, they are finding out that with the increase of insanity, which could not have been anticipated either here or there, there must also be a change in the method of the construction and arrangements of asylums, although many large buildings remain.—*Boston Med. and Surg. Journal.*

CORRESPONDENCE.

Hayesville, O., Dec. 12, 1881.

EDITORS OF JOURNAL:—I have carefully read the bill proposed for the creation of a State Board of Health and to regulate the practice of medicine in our State, and I believe it is eminently calculated to meet the present urgent necessities of the case, and it is to be hoped that every practitioner in the State, interested in the welfare of the profession, will lend his influence to have it made a law. Dr. Reeves' comments on the section regulating the practice of medicine, is, I think, based on a misconception of the true status of the profession in our State. I am satisfied there are comparatively few practitioners in the State, under ten years' experience, who are not armed with a diploma or certificate from some medical organization. This favorable condition of things has probably been brought about by an existing law passed in the year 1868—Vol. 65, Page 146, or Revised Statutes, Sec. 4403—which provides that all those with less than ten years' experience in practice must procure a

things has probably been brought about by an existing law passed in the year 1868—Vol. 65, Page 146, or Revised Statutes, Sec. 4403—which provides that all those with less than ten years' experience in practice must procure a diploma. Those of five or more years' practice were allowed *two* years in which to procure one. So that, since 1870, all practitioners in the State with less than ten years' practice, are required to have a diploma or certificate from some recognized medical organization, before they can legally engage in the practice of medicine in this State. That this law has been strictly enforced I do not claim, but it certainly has had a beneficial influence, and it probably has been as well enforced as any law of similar intent is likely to be in the future. So then we need no provision for the accommodation of the class specified by Dr. Reeves, and from which he anticipates opposition. Neither can the passage of the proposed bill be in the interest of the colleges, any more than the present law which has been in force for years.

Very Respectfully, &c.,

E. V. KENDIG.

SOCIETY PROCEEDINGS.

THE N. W. O. MEDICAL ASSOCIATION.

This Association met at the City Hall in Lima, Dec. 7th, at 2 P. M. The Society has now nearly three hundred members, about one-third of whom were in attendance.

The meeting was called to order by the President, Dr. S. B. Hiner, and the exercises opened by prayer, and an address of welcome, after which some half dozen new members were admitted.

Reading of essays then being in order, Dr. Wilkinson, of Van Wert, read an interesting paper on "Malaria," and Dr. McClung, of Leipsic, one on the "Therapeutics of Pneumonia."

These papers were discussed thoroughly, the latter subject especially receiving a great amount of consideration. One novelty in treatment, to the reporter at least, was the report of a case of croupous pneumonia, by Dr. Bradley, of St. Mary's, in which he administered large doses of ergot in the early stage, apparently controlling the engorgement of the vessels and cutting short the disease.

The Society then adjourned until 7½ P. M., when Dr. C. B. Stemen, of Fort Wayne, delivered a popular address on "The Medical Profession and its Relations to the Public," which was well received by the audience.

After the lecture a banquet was given by the physicians of the city and

county, to the Society, at the Lima House, which fully sustained the reputation of Mr. Goldsmith as a first-class caterer. At the conclusion of the supper a number of toasts were read, and the responses made by the different speakers were generally pointed and entertaining.

The Association again convened at 9 o'clock next morning, when Dr. Sager, of North Washington, read a paper on Specific Poisons, after which Dr. A. N. Krout, of Van Wert, read an interesting article entitled "Observations in Europe," which was supplemented by remarks by Dr. Halderman, of Columbus, both gentlemen having been in Europe during the past summer. Prof. R. A. Vance, of Cincinnati, then delivered an interesting lecture on "Knee Joint Injuries, and Inflammation," and their *medico-legal* aspects, during which he made the startling statement that he was cognizant of nearly fifty suits for malpractice, now pending, within a radius of about 100 miles of Cincinnati, nearly all of them being brought by impecunious parties against men of average ability, who had accumulated sufficient means to tempt the cupidity of the plaintiffs and their accomplices. A malpractice suit, under our present laws, is a better venture than a lottery to most of these parties, as there can be no loss, but may be great gain. The lecture was followed by remarks from many of the members, and occupied the time fully until adjournment, at 12:00.

The afternoon session opened by the reading of an admirable statistical report of obstetrical cases by Dr. J. R. Evans, of Delphos, giving the details of 657 cases attended during eleven years practice, such as sex, duration of labor, age, twins, deformities, accidents—as hemorrhage, convulsion, etc. It was well received by the Society, and the author highly complimented for his methodical manner of conducting business. Considerable discussion grew out of statements made as to the management of the different cases reported.

Dr. J. K. Woods, of Van Wert, then read an article on "Electrical Influences," after which Dr. Halderman reported a case of an injury near the knee joint, which, after amputation, proved to be an epiphyseal separation of the condyles of the femur, and their displacement half round. Dr. Tupper, of Ottawa, also reported a similar case in which amputation revealed a condition which demanded the removal of the limb as the only resource. The use of hot water in surgical operations to check or prevent hemorrhage, was then discussed by Drs. Stemen, Krout, Harper and others.

Miscellaneous business being next in order, and the usual committees appointed and other matters disposed of, the Society adjourned.

During the meeting Drs. Halderman and Vance, were made honorary members of the Society.

Six papers were read, not by title with leave to print but actually read and discussed, two lectures delivered, and the discussions and reports of cases, all together, make a record which the Society can well be proud of.

The Association is having an influence for good in this region, which is beginning to tell very perceptibly in the elevation of the standing of the profession, and those of us who have attended regularly from the organization of the Society, twelve years ago last June, can bear witness to the marked advance in the character and tone of the discussions. MEDICUS.

REVIEWS AND BOOK NOTICES.

Prices are always inserted when furnished by the publisher, or when obtainable from the bookseller.

Text Book of Modern Midwifery. By Rodney Glesan, M. D., Emeritus Professor of Obstetrics and Diseases of Women and Children in the Medical Department of the Willamette University, etc. With 130 illustrations. 8vo. pp. 639. Philadelphia: Presley Blakiston, 1881. Cloth, \$4.00; Sheep, \$5.00.

In his preface the author calls attention to the fact that many years have elapsed since the first appearance of the works of Meigs, Hodge, and Bedford, and that later editions have not kept pace with the progress of this branch of medicine, which deficiency has been sought to be supplied by reprints of foreign treatises. It is the author's aim to furnish a work more thoroughly representative of American Obstetric Practice.

Dr. Robert P. Harris, of Philadelphia, who has had editorial supervision of the book, in his introductory notice remarks that "his [the author's] remote position in America has not prevented him from being well posted upon all that is new in his particular branch of medical science;" and after a fair examination of the work we can fully accord with this remark.

Among the first things which strike the reader are the practical character and quaint style of the work. We could give numerous instances, but a few will suffice. Thus, page 19: "All persons need common sense, from the humblest laborer in our streets to the president of our great republic, but none more than the obstetrician." And, on page 40, speaking of too extensive or too resistant hymen: "The newly married man, however, generally manages to get along under the circumstances without surgical assistance." Also, page 79, considering the diagnosis between pregnancy and change of life: "If his patient happens to be a well-preserved newly-married woman of about forty-two, and over-anxious for a child, he will find it a difficult task

to ascertain all the facts for diagnosis, especially her age, for it must be remembered that a woman of that kind, especially if married to a man young enough to be her son, is never over thirty years of age."

The practical character of the work, as should be the case in a work aiming to be a *text book*, is well exemplified by the avoidance of the discussion of the questions not yet settled by modern science. In these cases the most approved theories are briefly and concisely stated, the authorities given, and the reader left to his own conclusions. Thus, in considering the source of the menstrual blood, after citing the theories of Coste, Farre, Pouchet, and Kolliker, he sums up thus: "Whether the blood makes its exit from the circulation by rupture of its minute capillaries, or from open ends of the latter, or by transudation or mechanical filtering through the mucous membrane, or whether it is a secretion of the latter, is as yet not fully determined; but it is certain that the blood is in some way furnished by the mucous membrane lining the cavity of the womb, by the utricular glands, and probably by the lining membrane of the Fallopian tubes."

We have not space to take up in review each chapter and consider it in relation to modern midwifery, but we may say, in general, that each subject is fully considered and all the material facts and ideas presented: we have noted very few omissions, and very little to which we would care to dissent. We shall therefore confine ourselves to a few points in the treatment of pregnancy, labor, and the puerperal state.

As to nausea and vomiting, the author says, page 217: "There is hardly a medicine in the pharmacopeia that has not been vaunted by some physician as a remedy. The fact is, that there are very few medicines that can be relied upon in all or even the majority of cases;" a statement which most physicians can safely endorse. "Those who have a fancy for heroic treatment * * may follow the plans of Graily Hewitt, and Copeman;" which he thinks too likely to cause abortion to be adopted except in very obstinate cases, which, by the way, are the only ones where these plans would be indicated. He admits the necessity of inducing abortion in desperate cases, as also in cases of albuminuria, where the mother's life is threatened.

In abortion his advice is sound, and accords with our own experience. He says: "It is the retention of a part or all of the secundines that usually gives the physician the most anxiety." "It is the duty of the physician, if present at this juncture (the escape of the embryo), to introduce the finger as far into the womb as practicable * * and hook out the placenta and membranes before the cervix contracts so closely as to prevent his doing so." But if contraction has occurred he may wait "a few hours to a few days or weeks," rather than to dilate artificially, unless there are indications of hemorrhage or septicemia, when the uterus must be dilated "and the

secundines removed by placental forceps, or preferably by the finger." "In some cases where the ovum appears detached, by a portion of it protruding from the cervix uteri, and is yet beyond the reach of the finger, chloroform may be administered, the whole hand introduced into the vagina, and a finger into the cavity of the uterus, when the retained parts may be extracted."

The author's idea of the management of labor appears to us sensible and judicious. He does not advise rupturing the bag of waters till the os is fully dilated, and thinks he has seen benefit in allowing it to assist in dilating the vagina, which seems to us rather questionable. Ergot should not be given as a routine treatment at any stage, but only under proper indications, and "never unless the womb is fully dilated and there is no mechanical obstacle to the speedy delivery of the fetus." The use of the forceps is discussed in a rational manner, and its employment advised in suitable cases; and it is in just these cases, viz.: whether forceps should be used or not, that the common sense, which the doctor insists the accoucheur should possess, is necessary. The indications for its employment are fully given, so far as they can be, and the physician who follows the author's advice will not go far wrong. The use of anesthetics he favors, in difficult cases. He has lately fallen into the habit of using ether, from its supposed superior safety. "Yet I consider the present clamor against chloroform as calculated to unjustly prejudice the public against a highly valuable agent, and I think the time will come when ether will be condemned in the same unjust manner, because of a few deaths in many thousands of cases." We think it has been abundantly shown that chloroform is a sufficiently safe agent to employ in obstetric practice, while its promptness of action, greater acceptability to the patient, and non-inflammability, render it far preferable in all other respects.

In the treatment of puerperal convulsions, the author considers the use of blood-letting, anesthetics, chloral, and morphia. Of the first he says: "Most modern practitioners in Great Britain and the United States reject it altogether." Anesthetics may be employed during or prior to a fit, or between the fits; but most obstetricians know that fits will occur even under full anesthesia. Following Dr. Kane, he considers chloral the best remedy. It should be given in solution by the rectum, $\frac{1}{3}$ as an initial dose, and fifteen grains every hour until the spasms have ceased. Although we have usually tried the hypodermic-morphia treatment, we think the chloral may perhaps be preferable. The veratrum treatment is not mentioned.

We have given a few hints as to the author's method of considering some subjects of interest. It is evident from a perusal of the volume that he views the field from the standpoint of actual practice, rather than theory; that he has really met the difficulties he describes. This gives a peculiarly practical character to the treatise, and in no way is this manifested more clearly than in the many useful hints as to seemingly unimportant matters, which are

often overlooked or thought needless by obstetric teachers and writers, but which are fully appreciated by the practicing physician, especially the novice. The author takes a wide and unprejudiced view of the subject, has no pet theories to sustain, and evidently is not deficient in that common sense which he deems so befitting to a man who intends to practice midwifery. As an instance of his freedom from being biased by popular theories, we quote (page 622): "Even Listerism, now so popular, may have its day, for it should be remembered that there are fashions in medicine as well as in social life, and that grave and learned doctors are sometimes influenced by them more than they are aware." He here seems to have anticipated the fate of Listerism as told in the late International Congress.

In conclusion, we may say that the student or practitioner will find in this volume all that is requisite to a practical understanding of midwifery as expounded at the present day, and if he follows the counsels here presented, will seldom go astray.

The illustrations are mainly appropriate and illustrative, but a few of them, as Fig. 19, for instance, are inferior. The typographical appearance is excellent.

G. A. C.

The Physician's Daily Pocket Record, comprising a visiting list, many useful memoranda, tables, etc. By S. W. Butler, M.D. New and thoroughly revised. Edited by D. G. Brinton, M. D., Philadelphia: Published at the office of the Medical and Surgical Reporter, 115 South Seventh Street, 1882.

This deservedly popular visiting list has now been before the profession for sixteen years. It contains all the tables and memoranda usually found in books of its kind. It is neat and compact and fully meets all the requirements of a Physician's Daily Pocket Record.

LIBRARY OF MEDICAL CLASSICS.—I. A Practical Manual of the Treatment of the Diseases of the Rectum. By Henry Smith, F. R. C. S. II. Clinical Lectures on the Diseases of Women. By J. Matthews Duncan. III. A Manual of the Venereal Diseases, for Students and Practitioners. By Berkeley Hill and Arthur Cooper, New York: Bermingham & Co.

The demand for cheap literature has rendered the republication in the cheapest form possible, of the best novels, histories, tales, etc., successful in the extreme, and we are pleased to see the same method of issue applied to medical literature. The works are issued in small, though clear, type, on good paper, 8vo., and bound in paper covers. They contain, respectively, 44, 67, and 25 pages, and sell for 25, 35, and 20 cents each.

They constitute the first three numbers of a "Library," the numbers appearing semi-monthly, at a subscription price of \$8.00 per annum.

We hope to see the venture succeed.

ATLAS OF SKIN DISEASES.—By Louis A. Duhring, M. D., Professor of Skin Diseases of the University of Pennsylvania; Consulting Physician to the Philadelphia Dispensary for Skin Diseases; Dermatologist to the Philadelphia Hospital; Author of "A Practical Treatise on Diseases of the Skin," etc. Philadelphia: J. B. Lippincott & Co.

Parts VIII and IX, now before us, complete this admirable work. Part VIII represents *Erythema Multiforme* (Papulosum), *Psoriasis*, *Syphiloderma* (Tuberculosum), *Tinea Tricophytina* (Circinata et Tonsuraus). Part IX: *Eczema* (Rubrum)—two plates—*Pamphigus* and *Ecthyma*. The plates are characterized by the same life-like delineations which we have taken occasion to notice in preceding parts, and which have been rarely equaled, and surely never surpassed by those of any other work. To part IX, is added a table of contents, and a classified arrangement of the parts for binding. Eczema being the most common of skin diseases, and the one which most frequently engages the practitioner, is represented in its various forms by eight plates, syphilis also by six, and other diseases by two or one each.

The *Atlas* as a whole, makes an invaluable addition to a medical library, and, as the issue is exceedingly limited, those who desire to possess it should take immediate action. It is at present the best atlas of skin diseases in existence, and as Americans we may well feel proud of it.

SELF-EXPLANATORY LITERARY NOTES.

1. "*The North American Review*, although published by Messrs. D. Appleton & Co., is owned and wholly controlled by its editor. Messrs. Appleton & Co., in view of recent articles which have appeared in it, will decline to act even as its publishers after the close of the present year."

2. "The editor and proprietor of the *North American Review* announces that the *Review* will hereafter be published at No. 30, Lafayette Place, and will appear under its own imprint. He states that he has found it impossible to conduct the publication in the spirit of the motto adopted by its founders, making it a forum of independent thought, and extending, at its discretion, the hospitality of its pages to thinkers and scholars of all creeds and forms of belief, and at the same time to maintain relations with a publishing house having extensive school-book and other interests of its own to promote. This change of imprint will involve no alteration whatever in the organization or service of the *Review*."

THE PHYSICIANS CLINICAL RECORD, for hospital and private practice, with memoranda for examining patients temperature, chests, etc. Philadelphia: D. G. Brinton, 115 S. 7th St. 1881.

For his own sake, as well as for the benefit of his profession, the physician constantly finds it necessary to preserve accurate records of his more important cases. Nothing else so instructs him as the perusal of such records, thus

impressing on his memory the lessons of that best of teachers, Experience. It is practically impossible for him however to keep such records, with needed accuracy and desired brevity, unless he use a regular form. To this end the publisher has prepared the present volume, small enough to be carried in the coat pocket, complete enough to allow of all the essential entries of over a hundred cases. A small stencil plate accompanies it, to be used for sketching an outline of the thorax and abdomen, in which may be marked, the seats of effusion, the size of organs, the position of tumors, etc.

Transactions of the American Gynecological Society. Vol 5. For the year 1880. Boston: Houghton, Mifflin, & Co., 1881. 8vo. pp. 470.

There is no medical society in this country that issues its *Transactions* in such elegant style as the American Gynecological Society. The present volume is unusually rich in valuable material, and can but be prized by those who possess the former volumes. The address of the retiring president, Dr. Sims, is devoted chiefly to suggestions as to changes in the constitution and by-laws. Dr. Battey, of Georgia, answers the question, "What is the Proper Field for Battey's Operation?" to the effect that the operation should be reserved for grave cases—when all other means have failed, and even then only when it is reasonable to expect benefit from the operation. Dr. Engleman, of St. Louis, contributes an excellent ethnological paper on "Posture in Labor." In another paper he reports two cases of anterior displacement of the ovary, simulating hernia, for which he performed Battey's operation. Dr. Byford, of Chicago, reports a case of extirpation of an encephaloid kidney. Dr. Jackson, also of Chicago, writes on Uterine Massage as a means of treating certain forms of enlargement of the womb. Dr. Sutton, of Pittsburgh, reports a case of catalepsy cured by trachelorrhaphy. Dr. H. P. C. Wilson, of Baltimore, reports a case of ovariectomy during pregnancy, successful as to both mother and child. Dr. Theophilus Parvin, of Indianapolis, gives a paper on "Secondary Puerperal Metrorrhagia." Dr. Wm. T. Howard, of Baltimore, reports three fatal cases of rupture of the uterus, "with laparotomy." The cases are full of interest. Dr. Eve, of Augusta, Ga., reports a case of occlusion of the neck of the gravid uterus, which occurred in the practice of Drs. Alfriend, of Sparta, Ga. Dr. James R. Chadwick, of Boston, advocates strongly the use of hot water douches in puerperal cases of diarrhea, backache, painful defecation, pain and burning sensations in the abdomen. Dr. Campbell, of Augusta, Ga., speaks highly of the "Prophylactic and Therapeutic Value of Quinine in Gynecic and Obstetric Practice." His paper is an admirable review of the whole subject. "Manual Dilatation of the Os Uteri as a Means of Inducing Premature Labor," is the title of a paper by Dr. W. L. Richardson, of Boston. A paper on "Laparotomy and Laparo-Hysterotomy—Their

Indications and Statistics—for Fibroid Tumors of the Uterus," by Dr. C. D. Palmer, of Cincinnati, is of much value to medical literature. The usual indexes follow, and complete a volume that is replete with important papers. We regret that space forbids an extended synopsis of each.

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LEGAL SUPERVISION OF PLUMBING AND DRAINAGE.

The function of the physician is to prevent disease rather than to cure it; this is universally conceded. In order to prevent any disease, he must extend his knowledge of the causes that tend to produce that disease.

There is a class of diseases, widely prevalent and terribly fatal, known as "filth diseases." They are, unfortunately, little amenable to treatment, but they can be prevented by proper attention to the cleanliness of the individual and his surroundings. In the country, where wells, cisterns, cellars and privies are open to inspection, the methods that must be adopted to secure cleanliness can, at least, be pointed out by the intelligent physician or sanitarian; but in the cities, where filth is concealed in foul sewers—or still fouler cess-pools; where the water-closet, with its soil-pipe carefully concealed, takes the place of the more primitive privy; where stationary wash-stands and wash-tubs, connecting directly with the sewers, have displaced their less convenient, but far more cleanly, predecessors; and where the finest residences, because built by contract and supervised by careless—or, more frequently, ignorant—architects, may contain the most worthless and dangerous system of drainage—in the cities, we repeat, it requires special skill, and special facilities for inspection, to enable one to indicate the defective points—defective either in plan or execution—and point out the remedy.

To correct this evil two things are necessary; first, the physician who really appreciates his true position in the community, must educate himself thoroughly in the principles, and to a certain extent in the practice, of plumbing and drainage. Second, ordinances should be passed—by Councils or Health Boards, as the case may be—indicating certain great principles of plumbing, and requiring all plumbers to carry them out. All plumbing should be so done that all pipes, from the sewer which drains the house to the supply and waste of the remotest fixture, can be easily exposed for inspection at any time, and such inspection should be made, by a skilled and honest inspector, before the house is allowed to be occupied.

The real wealth of a community depends upon the number of its productive members. Every case of sickness, by reducing the number of producers, directly reduces the wealth. Hence, money expended to prevent sickness is well invested, and in no way can it prevent so much of sickness as in paying the salary of a competent inspector of plumbing and drainage.

Two special instances that have occurred in our own practice, one recently, have impressed this upon us:

1. Mr. — lives in a house which is one of several in a row *built by contract*, but “with all modern improvements.” Some one was sick in his family most of the time, malaria and diphtheria being the chief diseases. Repeatedly he was questioned as to his soil-pipes and drainage, but he always insisted they were all right. At last, one daughter was seized with typhoid fever. *Then*, and not till then, inspection was undertaken thoroughly. It revealed the fact that the common sewer of the row ran across his cellar, covered by only a few inches of earth. This pipe was made of clay, and the joints—as inevitably happens in time—had become loose, and the cement cracked, permitting the gases to escape. This defect was remedied, and there has not been a case of “filth disease” in that house since—over two years.

2. Mr. — lives in a rented house. Soon after entering it, one child was seized with diphtheria. Inspection showed that the drain pipe from the kitchen sink, with no trap whatever, ran into the cellar, and there connected with a brick drain; *connection being made by removing a brick from the covering of the drain*. This drain had a branch which ran across the cellar, under the cement bottom, being constructed to drain the cellar, and having no trap, nor any ventilation save at the point where the kitchen waste entered the main drain. This main drain, after receiving the branch and kitchen waste, could be traced, by a depression in the ground, through the back yard—probably a hundred feet—to the alley; whether it here entered a cess-pool or a sewer, no one could tell. At any rate there was no sign of a trap at any point, and certainly no ventilation, save at the opening in the cellar, or up into the kitchen through the waste-pipe.

The source of danger was pointed out, and the remedy ; and the advice given to act at once. But the child recovered promptly, the landlord objected to making any change, the tenant did not appreciate the danger of the situation, and nothing was done. Yet, within a month, a second child was stricken with the same disease, and died within twenty-four hours !

The Board of Health of New York, have adopted a plan of drainage and plumbing, which seems to meet the principal evils. A similar one should be adopted by all cities, and its requirements enforced. If the bill for a Board of Health in Ohio becomes a law, here will be one inviting field for the Board to labor in.

There is a great deal of human nature in the world ; and as long as work is let to the lowest bidder, so long will there be great danger that that work will be "scamped," unless prevented by law and honest, efficient and capable inspectors appointed to enforce that law.

We append the plan above alluded to, which we take from the *Sanitary Engineer*.

PLAN OF DRAINAGE AND PLUMBING AS ADOPTED BY THE NEW YORK BOARD OF HEALTH.

The following plan of construction has been approved by the Board of Health. When the work is completed, and before it is covered from view, the Board must be notified, that it may send an inspector.

1. All materials must be of good quality and free from defects ; the work must be executed in a thorough and workmanlike manner.

2. The arrangement of soil and waste pipes must be as direct as possible.

The drain, soil, and waste pipes, and the traps, should, if practicable, be exposed to view for ready inspection at all times, and for convenience in repairing. When placed within walls or partitions, they should be covered with woodwork fastened with screws, so as to be readily removed. In no case should they be absolutely inaccessible.

It is recommended to place the soil and other vertical pipes in a special shaft, between or adjacent to the water closet and the bath room, and serving as a ventilating shaft for them. This shaft should be at least two and a half feet square. It should extend from the cellar through the roof, and should be covered by a louvered skylight. It should be accessible at every story, and should have a very open but strong grating at each floor to stand upon.

3. Every house or building must be separately and independently connected with the street sewer by an iron pipe caulked with lead.

4. The house drain must be of iron, with a fall of at least one-half an inch to the foot, if possible.

It should run along the cellar wall, unless this is impracticable, in which case it should be laid in a trench cut at a uniform grade, walled up on the sides and provided with movable covers, with a hydraulic concrete base of four inches in thickness, on which the pipe is to rest.

It should be laid in a straight line, if possible. All changes in direction

must be made with curved pipe, and all connections with Y-branch pipes and one-eighth bends.

It must be provided with a running trap placed at an accessible point near the front of the house. The trap must be furnished with a hand-hole for convenience in cleaning, the cover of which must be properly fitted and the joints made tight with some proper cement.

There should be an inlet for fresh air entering the drain just inside the trap, of at least four inches in diameter, leading to the outer air and opening at any convenient place not too near a window.

No brick, sheet metal, or earthenware flue shall be used as a sewer ventilator, nor shall any chimney flue be used for this purpose.

5. Every soil pipe and waste pipe must be of iron and must extend at least two feet above the highest part of the roof or coping, of undiminished size, with a return bend or cowl. It must not open near a window nor an air shaft ventilating living rooms.

Horizontal soil and waste pipes are prohibited.

There should be no traps on vertical soil pipes or vertical waste pipes.

6. All iron pipes must be sound, free from holes, and of a uniform thickness of not less than one-eighth of an inch for a diameter of two, three, or four inches, or five-thirty-seconds of an inch for a diameter of five or six inches; and for large buildings the use of what is known as Extra Heavy Soil Pipe is recommended, which weighs as follows:

2 inches.....	5½	pounds	per	lineal	foot.
3 do	9½	do		do	
4 do	13	do		do	
5 do	17	do		do	
6 do	20	do		do	
7 do	27	do		do	
8 do	33½	do		do	
10 do	45	do		do	
12 do	54	do		do	

Before they are connected they must be thoroughly coated inside and outside with coal-tar pitch, applied hot, or some other equivalent substance.

Iron pipes, before being connected with fixtures, should have openings stopped and be filled with water and allowed to stand twenty-four hours for inspection.

7. All joints in the drain pipes, soil pipes, and waste pipes must be so caulked with oakum and lead, or with cement made of iron filings and sal-ammoniac, as to make them impermeable to gases.

All connections of lead with iron pipes should be made with a brass sleeve or ferrule, of the same size as the lead pipe, put in the hub of the branch of the iron pipe and caulked in with lead. The lead pipe should be attached to the ferrule by a wiped joint.

All connections of lead pipes should be by wiped joints.

8. Every water closet, sink, basin, wash-tray, bath, and every tub or set of tubs, must be separately and effectively trapped. The traps must be placed as near the fixtures as practicable. All exit pipes should be provided with strong metallic strainers.

9. Traps should be protected from syphonage by a special metallic air pipe not less than one and one-half inch in diameter; if it supply air to a

water closet trap, not less than two inches in diameter, the size to increase with the number of water closets.

These pipes must either extend two feet above the highest part of the roof or coping, the extension to be not less than four inches in diameter to avoid obstruction from frost, or they may be branched into a soil pipe above the inlet from the highest fixture. They may be combined by branching together those which serve several traps. These air pipes must always have a continuous slope, to avoid collecting water by condensation.

10. Every safe under a wash-basin, bath, urinal, water closet, or other fixture must be drained by a special pipe not directly connected with any soil pipe, waste pipe, drain, or sewer, but discharging into an open sink, upon the cellar floor, or outside the house.

11. No water pipe from a refrigerator shall be directly connected with the soil or waste pipe, or with the drain or sewer, or discharge into the soil, but it should discharge into an open sink. Such waste pipes should be so arranged as to admit of frequent flushing, and should be as short as possible, and disconnected with the refrigerator.

12. All water closets inside the house must be supplied with water from a special tank or cistern, the water of which is not used for any other purpose. The closets must never be supplied directly from the Croton supply pipes. A group of closets may be supplied from one tank, if on the same floor and continuous.

The overflow pipes from tanks should discharge into an open sink or into the bowl of the closet itself, and not into the soil or waste-pipe, nor into the drain or sewer. When the pressure of the Croton is not sufficient to supply these tanks, a pump must be provided.

13. Cisterns for drinking water are objectionable; if indispensable they must never be lined with lead, galvanized iron or zinc. They should be constructed of iron or of wood, lined with tin and planished copper. The overflow should be trapped, and should discharge into an open sink, never into any soil or waste pipe or water closet trap, nor into the drain or sewer.

14. Rain water leaders must never be used as soil, waste, or vent pipes; nor shall any soil, waste, or vent pipe be used as a leader.

When connected with the house drain, the leaders should be trapped beneath the ground, with a deep seal, to avoid evaporation, and if placed within the house, must be made of cast iron with leaded joints.

15. No steam exhaust will be allowed to connect with any soil or waste pipe.

16. Cellar and foundation walls should be rendered impervious to dampness, by the use of asphaltum or coal-tar pitch, in addition to hydraulic cement.

Subsoil drains should be provided when necessary.

17. Yards and areas should always be properly graded, cemented, flagged, or well paved, and drained by pipes discharging into the house drain. These pipes should be effectively trapped.

18. No privy vault, nor cesspool for sewage, will be permitted in any part of the city when a sewer is accessible.

CORRECTION.—In the last number of the JOURNAL, in Dr. Morse's article, on page 251, line 12, insert *not* between the words "was" and "full."

THE OHIO MEDICAL JOURNAL.

Vol. I.

FEBRUARY, 1882.

No. 8.

COMMUNICATIONS.

SOME OF THE SOURCES OF DANGER IN, AND THE TREATMENT OF, TYPHOID FEVER.

BY A. B. PRATT, M. D., MT. STERLING, O.

Observation can hardly fail to impress upon the mind of the practitioner that all forms of acute disease are of the nature of an accident; that like a broken limb, or gunshot wound, they are characterized by an inherent tendency to recovery, and by processes of repair which are definite in their character and in the periods of time necessary for their completion. Perhaps the entire range of acute diseases will not furnish a better illustration of the truth of this proposition than typhoid fever; because we know more of the method of the agencies that operate in its causation than we do of those that operate in the production of such diseases as measles and scarlet fever, and, while viewed in the light of an accident itself, its course, duration and final termination, depend, largely, upon freedom from accidental complications. The study of typhoid fever involves many points of interest, and a few that are of vital importance. It is the latter that I shall more especially consider in this paper, because they embody the chief sources of danger in the disease.

Typhoid fever has two principal types, which agree at their beginning and end, but not in their middle course. The first lasts only three weeks, and is accompanied by only slight infiltration of the plexus of intestinal glands, the cure coming easily. The second lasts from four to six weeks, sometimes much longer, and presents extensive and successive glandular deposits, with ulceration, and tedious restoration, the cure often being hindered by intercurrent febrile attacks, complications and accidents. In

cases extending beyond three weeks, we then have no means of knowing certainly the length of time that the disease will be prolonged.

Again, the course of typhoid fever is pursued with such unmistakable regularity that it is, next to remittent and relapsing fever, the very best proof we have of the theory of types in disease. Then the methodical nature of the disease is further instanced by its unvarying thermomertic manifestations during the initial stage. When this fever is once fairly developed, the individual attacked is subjected to a great physiological storm, that expends its fury on the nervous, absorbent and nutritive systems, and there is no more use attempting to arrest its progress or cast out the disease, than there would be planning to arrest an eruption of Mt. Vesuvius by casting bucketfuls of water in at its crater. We must wait for the system to deal with the fever and set on foot again the functions that have been prostrated, the practitioner being a watchful spectator, whose chief duty consists in guarding his patient against the special hindrances that may obstruct the normal course of the malady, and in assisting the suffering system in its own efforts at restoration. Just here the value of experience in the management of the disease becomes especially apparent; for in order that the practitioner may assist nature, he must be not only well acquainted with the chief characteristics of these special hindrances, but he must be familiar with their various methods of occurrence. He will then not venture upon a general engagement and fill his patient with drugs in the expectation of removing the danger entirely, nor will he attempt to match his strength against that of the disease, with the view of cutting it short, but will content himself in attempting to guide his patient safely past the threatened danger. Experience begets method, and naturally inclines the observant practitioner to classify the special dangers of typhoid fever somewhat after the following plan, viz: Dangers, first, from hyperpyrexia; second, from starvation; third, from self poisoning; fourth, from other agencies, such as pregnancy, malarial infection, visceral inflammations, etc.; fifth, from accidents, such as intestinal hemorrhage, perforation of the bowels, bedsores, and the like. Recognizing the convenience of the above classification, I will briefly discuss the various physical changes and dangers incident to the different divisions.

Hyperpyrexia has been assigned the first place, because at least two of the above stated sources of danger are so intimately connected with it as to be almost inseparable from it. The physical changes caused by hyperpyrexia consist chiefly in cell destruction in the tissues affected, and especially in an alteration in the blood, which becomes hyper-alkaline, viscid, and abnormally dark in color. This change gives rise to changes in the voluntary muscles which becomes dry, deeper in color, with the fibrils granular, fatty, or waxy, and thus unfitted for the performance of their individual functions. These changes also occur in the tissues of the heart, which are frequently so greatly

damaged that cardiac paralysis is one of the most frequent sources of danger in typhoid fever. Fatty degeneration of the liver, with destruction of the hepatic cells, is another result. In the kidneys, also, the same degenerative changes are met with. The lymphatic and ductless glands become enlarged, softened and frequently the seat of extensive disorganization. Finally, the nerve pulp is affected, and, in case of coma and death induced by hyperpyrexia, we find fatty degeneration of the nerve fibres, softening and pigmentary alterations in the ganglion cells, sometimes great cerebral edema, and, not infrequently, atrophy of the brain itself. The above brief *resume* will be sufficient to direct attention to the gravity of the subject, and challenge the scrutiny of that class of practitioners who do not seem to attach sufficient importance to the subject of temperature in this or any other form of disease.

Starvation.—Its gravity at once becomes apparent when we reflect that considerably more than one-half of the cases of acute disease that die, die from this cause alone. The digestive organs are among the first to give evidence of the presence of the typhoid poison, as is shown by the nausea and vomiting that occur so early, and by the loathing of food and diarrhea that come on a little later. The initial derangement of nutrition is due, probably, to the fact that the function of the glandular apparatus of the digestive tract, is interfered with and crippled, first, by the deposit of the typhoid poison in the glands themselves, and, second, by the paralyzing effects of the high temperature. It is probable that the latter is the chief factor, because it is a physiological law that the living body must maintain a uniform temperature, so as to furnish an unvarying point of distillation from the blood, for its vast glandular apparatus. We can readily understand that nutrition must suffer when the secretions of the glands, which are exceedingly complex organic compounds, accurately adjusted to the mission they discharge, are rendered absolutely unfit for the purposes of life. The evidences of this are the dry skin, thirst, and scanty urine that are invariably present. Another factor in the impairment of nutrition is the weakened condition of the muscular structure of the stomach, which prohibits the reduction of ordinary food to that condition which properly fits it for the solvent action of the digestive juices. This, in connection with the crippled glandular functions, reduces the digestive power to a condition of weakness that has but one parallel—that of infancy. When we couple this condition of weakness with the careless method often pursued in feeding fever patients, it is by no means wonderful that starvation occupies a prominent place among the dangers. The practitioner should prescribe a method of alimentation suited to the capacity and wants of the patient, and he should possess sufficient firmness to restrain friends from administering improper articles of food.

Self-poisoning.—If an excessively high temperature has involved the excreting glands and interfered with that constant depuration of the blood

necessary to its relief from impurities inimical alike to health and to life, self-poisoning, the third source of danger comprised in our classification, claims attention. The inevitable result of a suspension of this function must be to charge the blood with the effete matter of decay, thus furnishing the very best pabulum for the reproduction of the fever virus in the patient, and the consequent prolongation of the disease through several hebdomadal periods. The danger of self-poisoning is especially incident to cases of high morning and evening temperatures, and particularly in persons past middle life, whose glandular structures are undergoing the degenerative changes incident to advancing age. The danger is greatly modified, indeed almost entirely obviated, in those cases where the morning apyrexia is well defined, the functions of the emunctories, in this instance, manifesting great activity, as the congestion induced by the high temperature of the previous evening subsides. This fact is of paramount importance when considered in connection with the therapeutic and dietetic management of the disease.

Other morbid agencies, and conditions modifying the course of the disease, may be disposed of in a few sentences. Pregnancy is an extremely unfortunate complication; miscarriage occurs in about five-sixths of the cases, and death in about one-fifth. Chronic diseases of the respiratory and nervous system do not influence the course of the disease to the extent that we would expect at first glance, although they increase the gravity of the situation in an appreciable manner. Chronic disease of the heart exercises an extremely unfavorable influence, and adds much to the danger by augmenting the risk of cardiac paralysis. Malaria, as a rule, neither increases the aggregate severity nor effects the ultimate result. It does, however, often change the time of the pyrexia, so that the greatest elevation of temperature will be noted early in the morning. At other times the disease, when complicated, winds up with an intermitting form of fever, which is often extremely rebellious to treatment with quinine, but yields quite readily to the effects of arsenic.

The accidents will be discussed in connection with the review of the therapeutical measures indicated for their relief.

TREATMENT.—When the practitioner takes charge of a case of typhoid, he is just as fully bound to protect the healthy members of the family and all persons who may come within the radius of infection, as he is to put forth his best effort for the cure of the sick. Prophylaxis will accomplish much in this connection, if we recognize typhoid fever as a miasmatic contagious disease; one in which the special poison cannot be transmitted directly from one person to another, but must pass through a stage of development outside of the body before it can produce the disease in another individual. Such quiescence becomes fatal if it be at this time acted upon by agents capable of destroying it. Assuming

that the above is correct, something like the following system of prophylaxis should be instituted whenever the disease makes its appearance. The privy vault should be disinfected by the use of a sufficient quantity of a mixture of equal parts of manganate of soda and sulphate of magnesia; the moisture present forms a permanganate of soda which is decomposed by the impurities present, producing ozone, which is a powerful disinfectant and deodorizer. Afterwards the vault may be preserved in a healthy condition by the process already described, or by covering the contents every few days with a mixture of two parts of chlorinated lime and one of charcoal reduced to a coarse powder. All other accumulations of filth should be treated in a like manner. The well should be cleansed and disinfected by covering the bottom with the soda and magnesia mixture and by burning sulphur in some kind of vessel that will permit its being carried upwards and downwards in the well throughout the entire length of its shaft. The filth removed should be disinfected so that it may not prove a source of infection. If the well should be a source of apprehension it should be closed up entirely. In this way the two probable sources of infection are purified and preserved in a healthy condition.

For the purpose of securing the greatest perfection possible in prophylaxis, the patient should be placed in an isolated spare room, with bare walls and floor, containing, aside from two beds, a table and a few chairs. Thorough ventilation *must be provided for*. The patient should be thoroughly cleaned each day, and placed in the spare bed, the one in use the previous day being taken out of doors and, with such articles of bed-clothing as cannot be conveniently washed, exposed for some hours. All sheets, pillow-cases, napkins, handkerchiefs, rags and the cast off linen of the patient, should be thoroughly boiled daily. The excretions of the patient should be submitted to a rigid system of disinfection, and previous to using the bed-pan its bottom should be covered with the soda and magnesia mixture or with a mixture consisting of one pound sulphate of iron, and one ounce of creosote, or crude carbolic acid, in one gallon of water. The excretions should be deposited in a sink or trench provided for the purpose, in such a situation that it cannot affect the well by drainage: this sink should be constantly disinfected. The patient's room should also be disinfected by a well regulated elimination of ozone by means of phosphorus. For this purpose half a stick of phosphorus should be placed on a plate with a sufficient quantity of water to immerse two thirds of it; the plate, placed out of reach of accident, should be under constant observation, and the liberation of ozone permitted until sufficient has been liberated to meet present indications. When the disinfection of the room is complete, the process can be suspended by covering the phosphorus with water.

If the above measures of prophylaxis are faithfully carried out, I am

convinced that typhoid fever will, in but very few instances, extend beyond the first individual attacked.

The practitioner, having thus far divided his attention between the patient and his friends, should now devote it, exclusively, to the patient himself. No careful practitioner would think of risking further damage to the already crippled nervous system, or would court the danger of rendering the stomach still more intolerant, by the administration of 40, 60, or 80 grains of quinine for the purpose of reducing the temperature, that reaches at most 103° in the afternoon, and then drops down to 101° or 100° by the following morning; just because Juergensen, Liebermeister, or some other noted authority had said that large doses of quinia were efficient in high temperature; or what physician of experience would think of permitting his patient to remain in an ice-water bath after his temperature had descended rapidly from 105° or 106° to 100° or below, and thus subject him to the danger of sudden and perhaps fatal collapse, simply because some noted clinician had said the bath was a powerful agent in saving the heart and nervous system in cases of typhoid fever. Yet an ordinary routine method of practice is pregnant with such dangers. Cold and quinia judiciously applied, are all-powerful to do good; they are also, when indiscriminately used, capable of doing great and even fatal mischief. I wish to be understood as authorizing the full effects of cold only in those cases where there is a persistently high temperature, mounting from 102 to 103° in the morning, to 104 and 105° and even higher in the evening. Such cases call imperatively for relief, and in case it should be impossible to meet the indication with cold, the practitioner should resort to antipyretic doses of quinia, and persist in their exhibition until success crowns his efforts. A separate indication for the use of quinia is the elimination of the malarial complication so frequently present in the first week of the disease, but full antipyretic doses are not required for this purpose.

With reference to the application of cold two methods recommend themselves; the bath, and the pack, as administered on Kibbe's fever cot. This cot may be extemporized by fastening a strong open-work cotton blanket to the side rails of an ordinary single bedstead, while a rubber cloth is attached in such a manner that it slopes towards the foot, so as to carry off the water into a suitable receptacle. The patient is placed upon the cot under a folded sheet, upon which cold or iced water is poured until the desired reduction in temperature is secured. Afterwards he may be removed to his bed, and covered with a light blanket. If the temperature speedily overcomes the effect of the cooling, the patient, with a folded woollen blanket under him, may be made comfortable and so remain upon the cot, and have the application of the cold renewed as needed. The application of cold should always be made under the guidance of the thermometer, and must be

continued until the temperature has been reduced to the desired point. When the temperature commences to fall, thermometric observations should be made every three minutes. If the mercury sink rapidly, say two degrees in five minutes, or three degrees in ten, the patient should be removed from the bath, no matter what degree of temperature is indicated, because it will continue to run down for an hour, and frequently for a still greater length of time, and there is danger, if the bath be prolonged, that the patient may be precipitated from the dangers of a torrid temperature to others of equal gravity, incident to the frigidity of collapse. If the temperature be 104-5 degrees, the application should be suspended when the thermometer indicates 101 or 100 degrees; for a further declension to 99 or 98 degrees will occur; or if the patient should remain in an iced bath or pack for twenty minutes, and his temperature only fall to 102 degrees, it would be safer to remove him than to permit him to remain longer. If a bath be administered to a patient during the first week of a fever, who has a temperature of 105 degrees or above, and it should sink to 99 degrees or thereabouts in a period of ten minutes, it is almost conclusive evidence that it is not typhoid fever, but some other complaint. If a patient is unable at first to bear a bath sufficiently cold, Ziemssen's plan of placing him in a bath more nearly the temperature of the body, and then gradually reducing it by the addition of ice, may be resorted to. The number of applications in twenty-four hours will be regulated by the rapidity with which the temperature rises; and may in some instances reach as many as twelve, while in others two or three will be sufficient. The good effects of the application of cold are made apparent in the generally bettered condition of the patient. The disease will not be cut short by its employment, but the patient's chances for recovery will be greatly increased.

Notwithstanding the acknowledged efficacy of cold in subduing hyperpyrexia, there are, unfortunately, a great many instances in which we are deprived of its benefits. It is not often that the practitioner can spare the time to superintend a bath, and it would not be safe to delegate it to any but trained nurses, and these, unfortunately, are not often found. Or the fears of the patient may preclude its use, or the friends will become alarmed and enter protest the moment it is suggested. Hence it is fortunate, indeed, that we are in possession of medicinal agents having antipyretic properties. Quinia possesses this power in a degree but little, if at all, inferior to cold, and when given in sufficient quantities, and at the proper time, will seldom fail. If a bath be given in from eight to twelve hours after the administration of an antipyretic dose of quinia, the effects of the cold will be greatly prolonged. Quinine is best given at bedtime, so that its effects will be in full operation with the occurrence of the morning apyrexia. If the patient's stomach be retentive, 30 or 40 grains may be given at once without prepara-

tion; but should vomiting be apprehended, give $\frac{1}{8}$ or $\frac{1}{4}$ of a grain of morphia, and after the lapse of $\frac{3}{4}$ of an hour apply a sinapism to the epigastrium, and with the occurrence of the cutaneous redness incident to the application, the quinia should be administered. If at the expiration of 24 hours no change in the temperature is observed, 50 or 60 grains should be given. Such or even larger doses of the drug should be given whenever there is a continuously high temperature, with but little difference in the morning and evening indications, until it is brought into subjection. Quinia does not arrest the course of typhoid fever, nor cut it short, but its intelligent employment will most assuredly do much toward tiding the patient safely over the dangers of long continued high temperature.

Other agents, such as digitalis, veratrum viride, aconite, and gelsemium, seem to possess antipyretic properties, but they are all inferior to cold and quinia; still, if the latter agents are contraindicated, or should fail in reducing the temperature, a combination of veratrum, aconite, and gelsemium may be used, such as has been recommended by Dr. Wm. H. Thompson, for the reduction of temperature in phthisis. The following is his formula: R Tr. virat. vir.; 'ext. gelsemini, fl., aa ʒj; tr. aconiti rad., ʒvj. M. Sig. Five drops every two hours. Watch the pulse, and upon the first sign of intermission in its beat, or real slackening of its rate, the dose should be either greatly reduced, or withheld entirely.

The typhoid fever patient, if severely attacked, should be fed like an infant. He should have fluid food, so that no demand will be made on the weakened muscular coats of the stomach. It should embrace everything necessary for complete physical repair. Milk, pure sweet milk, has been aptly termed, "fluid flesh, bones, and nervous matter," and this is the food, par excellence, for the typhoid fever patient, and will meet in the most efficient manner all the wants of his weakened organism. It may occur that some solvent will be required for the casein; if so, lime water, in the proportion of $\frac{1}{3}$ to $\frac{1}{2}$, will meet the indication in a way that will leave nothing to be desired. There is scarcely any limit to be placed upon the quantity; it should be as much as the patient can take and dispose of with comfort, and may amount to several quarts daily. The weakened digestive powers may be aided by the exhibition of ten grain doses of Scheffer's or Jensen's pepsin, in solution with 15 or 20 drops of dilute hydrochloric acid, given an hour after taking milk. The pepsin will aid digestion, while the acid discharges the several functions of tonic, antiseptic, and restorative. Just here I may remark that no other agent can be found so eminently fitted for restoring and preserving the epithelial covering of the mucous membrane of the alimentary canal, as hydrochloric acid. Its beneficent action is manifested at both ends of the tube, as will be observed in the cleaner and moister condition of the tongue, and the better looking and less frequent

alvine discharges. The monotony of the milk diet may be broken by the exhibition of meat juice, combined with some farinaceous article in a state of fine division. The meat juice should be prepared by placing a piece of lean beefsteak in a hot skillet, under a hot lid, until it is heated sufficiently to start the flow of juice from the fibre. The juice should then be expressed from the meat with a lemon squeezer, and well salted to prevent fermentation. This answers well for purpose of stimulation in greatly weakened heart, but good pure milk should be the dietetic sheet anchor in this fever. Solid food is not admissible; first, the unbearable loathing it usually excites would quite probably induce vomiting; second, on account of the weakened condition of the stomach, it would not be brought into a condition compatible with complete digestion; third, in the absence of the normal digestive juices, it would, if not vomited, lie for some time as mere foreign matter in the stomach, undergoing fermentation and decomposition, and then, passing away by diarrhea, accompanied with the evolution of enormous quantities of gas, would intensify the already existing tympanites; finally, the passage of indigested food over the points of ulceration might cause perforation, with resulting peritonitis and death. The giving of nourishment is usually distributed equally over the 24 hours, but I am satisfied that by far the greater amount should be given during the usual daily defervescence, because the functions of the digestive tract are much more active when it is relieved of the congestion and dryness which accompanies the hyperpyrexia. The celebrated Dr. Graves was fond of exhibiting food during the day, and nothing but fluids at night; arguing that it was not best, even in sickness, to interfere with the diurnal revolutions of the economy; but I am satisfied that the greatest amount of food should be given at such times as the digestive organs can best dispose of it, be it day or night.

Self-Poisoning.—If the temperature be controlled to a maximum of 103° with a minimum of 100° or 101° , if the amount of aliment be sufficient, if the functions of the skin and kidneys maintain a moderate degree of activity, and the bowels are opened once or twice daily, we need have but little apprehension of the third source of danger in this fever, viz.: self-poisoning. If, however, it should occur with more than ordinary severity, I do not believe there is any treatment which promises more than the line already described, with the addition of stimulation. I do not believe it possible to eliminate or neutralize the poison, although much may be done to support the powers of life during the period of its activity. A great deal has been said in regard to calomel, iodine, and iodide of potassium, in "unlocking the secretions" and promoting the elimination of the poison; but it has already been shown that it is a high temperature that causes arrest of function in the glandular apparatus, and that these functions are resumed again with an apparently increased activity upon removal of the fiery incubus. The first clause of the

1.—8.—2.

above proposition argues the importance of calomel and the preparations of iodine as eliminators, while the second clause proclaims emphatically the value of cold externally, with quinia and an abundance of cold water internally, because these agents reduce fever heat. The water used to quench the thirst acts in the capacity severally of antipyretic, diuretic, and diluent for the poison.

Complications and Accidents.—About five out of ten of pregnant women attacked miscarry. Previous to the adoption of the antipyretic treatment, about three-fifths of those attacked succumbed: since that time, as nearly as I can learn, about one in five dies. Obviously then we expect better results in cases thus complicated if the temperature is closely watched, and its too great elevation energetically combatted. Owing to the unsettled condition of the professional mind as to the oxytocic properties of quinia, it would be the better plan perhaps to rely entirely upon the application of cold in these cases, for the purpose of reducing temperature.

Chronic disease of the heart adds much to the gravity of the affection, on account of the increased danger of cardiac paralysis, and calls loudly for antipyretic treatment in order to prevent the mischief that will otherwise most surely occur. In these cases one-eighth of a drachm of tincture of nux vomica should be given thrice daily, with the pepsin and acid mixture. If paralysis is seriously threatened, as shown by the quickened pulse and weakened or muffled first sound, free doses should be added of good brandy or whiskey, with from one-half to a drachm of spirit of chloroform, or a drachm of Hoffman's anodyne, with every second dose of the alcoholic stimulant. If the paralysis should actually occur, heat should be applied to the epigastrium, by means of heavy porcelain sauce dishes dipped in hot water, brandy should be used hypodermically, water as hot as the rectum will bear should be thrown into the bowel, and, should reaction still fail to occur, the patient should be wrapped in a blanket wrung out of strong hot capsicum or mustard tea; and finally, if all other means fail, he should be placed in a bath with a temperature of about 103°.

Chronic diseases of the respiratory organs do not call for any special modification of treatment, further than a more persevering effort to protect the powers of life. Pneumonia is liable to be accompanied with more or less pulmonary edema, and should be combatted by the exhibition, every third hour, of ten grains of carbonate of ammonia in combination with small doses of camphor.

Diarrhea, if it cause more than one or two alvine discharges daily, should be controlled, preferably by enemata of five or six ounces of starch, which may or may not contain opium. If there should be much pain preceding or accompanying the stools, laudanum may be added. This method of controlling diarrhea appears the more rational when we reflect that it will

not be likely to occur unless the colon is involved in the ulceration; in which case the starch will protect the rectum and sigmoid flexure from the acrid secretions of the bowels, and thus restrain the frequent motions. Again, drugs administered by the mouth for the purpose of checking diarrhea have to pass through twenty-five feet of intestine, and disappoint us more frequently than otherwise. If drugs become necessary, I am partial to a combination of $\frac{1}{2}$ or 1 grain of opium to 25 or 30 grains of bismuth, given every three or four hours until the diarrhea is controlled.

If *hemorrhage* from the bowels occur, the practitioner in his anxiety to do something will most likely resort to astringents, such as lead, tannin, gallic acid and the like; but a more moderate course should be pursued, since more than likely the hemorrhage has cured itself, before a single particle of blood has made its escape from the rectum, and it only remains for the practitioner to give a few small doses of opium to control peristalsis, and apply ice to the abdomen, more for the purpose of quieting the fears of the friends than arresting the hemorrhage. If, however, the patient become suddenly much weaker, with the skin cold and pale, the heart acting feebly, and the pulse frequent and weak, with dullness upon percussion over the abdomen where tympanitic resonance had been recognized but a short time previously, the practitioner would be justified in concluding that a sudden and extensive hemorrhage was occurring, and he should proceed promptly with the application of ice to the abdomen, and the administration hypodermically of one-eighth of a grain of morphia and three to five grains of Squibb's ergotine.

Perforation.—There is but one method of treatment for perforation of the bowels, and that is opium in any quantity that will produce semi-narcosis.

Delirium requires careful watching. The patient should never be left alone after he once begins to descend the curve, because delirium is liable to occur at any moment, and he might do something that would result disastrously. The milder forms of delirium usually give way to the antipyretic treatment, but if it should be an urgent and persistent symptom in the earlier stages of the disease, and other means fail to arrest it, we may resort to the use of Grave's mixture: \mathcal{R} Ant. et potas. tart., gr. iv.; tinct. opii, \mathfrak{zj} ; aq. camphoræ, \mathfrak{zviij} . M. Sig. Tablespoonful every second hour, until the desired effect is obtained. When delirium occurs late in the disease, it is a symptom of cerebral exhaustion, and is best treated with alcoholic stimulants. I have many times witnessed a patient who in his incoherency seemed determined to leave the bed and "go home," quiet down nicely and fall into a gentle slumber through the instrumentality of two or three full doses of egg-nog.

Bed sores add much to the gravity of the situation, and their occurrence

should be anticipated by thoroughly bathing each point on which pressure is expected, several times daily with a mixture of one part of nitric ether to three of water. If a slight abrasion of the skin occur, it should at once be covered with a solution of one part iodoform to fifteen of collodion, and pressure removed from the injured point. If the broken skin be much inflamed and accompanied with a hardened base, the covering of collodion and iodoform should be fortified by the addition of numerous layers of absorbent cotton, each layer of cotton being saturated and fastened with collodion applied with a large, broad camel's hair brush, and a rubber cushion filled with air or iced water, placed under the damaged part. It is an admirable plan to have two rubber cushions, one filled with air and the other with iced water, and use them alternately, removing the one filled with iced water whenever the water becomes heated, and replacing it with the one filled with air, resorting to the first one again whenever the part has recovered from the effects of the previous cooling. If necrosis occur, the dead tissue must be gotten rid of as speedily as possible by means of poultices and excision; after which the sore should be dressed with a mixture of creasote two parts and vaseline five parts, until granulations make their appearance, when the cavity should be made to fill as rapidly as possible by being drawn together with adhesive straps. The foregoing plan of managing bed sores I can heartily commend, after testing its efficacy in quite a number of cases. I have had no experience in the use of the bath for the treatment of bed sores as recommended by Liebermeister, but think favorably of it in case it can be conveniently reduced to practice.

A resume of this paper involves three or four points that should always be borne in mind. 1st. We cannot cure this fever. 2d. We cannot cut it short. 3d. We can increase the patient's chances for getting well. 4th. The third proposition is compassed by combatting long continued high temperature, and by physiological feeding and proper treatment of complications and accidents.

A CASE OF PERIMETRIC HEMATOCELE.

BY W. B. MARPLE, M. D., WASHINGTON C. H., OHIO.

Mrs. S——, aged 19, married about eight months, well nourished; previous health has been tolerably good, though some years ago she was a sufferer from acute rheumatism and anemia. She began menstruating when twelve years of age, and has always menstrated pretty freely. There has been no menstrual irregularity since her marriage. She ceased menstruating on September 18th. Two weeks subsequent to this, on Sunday, October 2d, 1881, she began to "waste," to use her expression for metrorrhagia.

The flow continued to increase until Thursday, October 13th. About five o'clock that morning she experienced severe pains in the hypogastric region, in the vicinity of the uterus. Later she perspired profusely, and vomited. The pain continuing she rode into town to see Doctor X——. She was then bleeding, or wasting, considerably, and he inserted a plug of cotton into the vagina, back of the cervix, with directions to remove and renew in twenty-four hours. Friday she removed the tampon and inserted another, but soon had to remove it on account of the pain it occasioned. The pain and hemorrhage continued, the former especially being exceedingly severe. The following Monday night, about eleven o'clock, Dr. Foster was called to the case, and it was through his kindness I was enabled to see it. The sufferings of the patient were then intense, and had been so for twenty-four hours or more, compelling her to writhe, and cry out in agony. She would clutch the bed-post, or would ask to hold the arm of the nurse, in order to "help her bear the pain." This pain was paroxysmal in character, although there was more or less of dull pain constantly present. There was great difficulty in making water, and constant illusory desire to defecate.

Examination per vaginam revealed the following: It was well nigh impossible to reach the os uteri, as it was pushed up out of reach. Encroaching on the posterior wall of the vagina was a tumor, which was nearly the size of a goose-egg. The tumor was somewhat elastic, and appeared to occupy Douglass' cul-de-sac. There was at that time only slight discharge from the vagina. Examination per rectum revealed the tumor, and also the fact that the rectum was entirely empty, although there was a catarrhal secretion from the rectal walls. There was only slight tenderness over the abdomen, especially marked in the hypogastric region, and slight tympanites. The pulse was 115 and weak; temperature ranged from 100° to 102° F. Although for scientific reasons it would have been interesting to have passed the sound, yet it was thought best for the patient to omit this.

The diagnosis was retro-uterine hematocele. The patient was given a quarter of a grain of morphia per os immediately, to be repeated in an hour and a half, and after that often enough to relieve the pain. On visiting her the following morning, it was found that the severity of the pain had been much diminished after the second dose of morphia, although the paroxysms of pain, though much diminished in severity, continued for some time.

There was nothing of particular interest in the case for four days, during which the treatment consisted of morphia, to relieve pain; stimulants occasionally; perfect quiet in bed on the back (during which time a request for a "physic" was refused); and, finally, care was taken that she have good nourishment at regular intervals. Saturday there was a circumscribed soft spot on the right side of the tumor (where it encroached on the vagina) at its lower part. She was directed to have warm water injections into the vagina

occasionally during the day, but their use was suspended soon, as the patient complained that they pained and nauseated her. Sunday morning, October 23d, ten days after the appearance of the tumor, about one o'clock, the patient commenced to have a bloody flow from the vagina. This continued and was rather free for about six hours, till seven o'clock Sunday morning. Then the character of the discharge appeared to change, becoming now serous, or like bloody water, as the attendants called it. It gradually diminished in quantity till Sunday evening, when I saw her. Then the discharge was hardly perceptible. Examination per vaginam now revealed the fact that the os had perceptibly descended, and was reached with comparative ease. The tumor had disappeared, and at the spot which was soft at previous examination, could now be felt plainly a little rent or opening in vaginal wall. Pain during Sunday and ever since October 23d, has been slight and easily relieved; the appetite and strength are returning. The patient, notwithstanding repeated admonitions to keep quiet in bed for a few days, was soon on her feet at her household duties. I have expected since to hear that she had another attack, but as yet (November 18) it has not come.

In regard to the cause, it is safe in this case to exclude pregnancy, normal or extrauterine, abortion, injury to abdomen, etc. The most probable cause is to be found in the menstrual disturbance.

Here the menstrual molimen began two weeks ahead of time, and was attended with metrorrhagia from which she suffered for ten days before she had any symptoms of hematocele; so that the general pelvic congestion incident to the abnormal menstruation may be set down as the principal cause of the hemorrhage, as it was in several of Barnes' cases. As to the exact location of the hemorrhage, there are one or two features about the case which incline me to the opinion that the effusion was into the right broad ligament. If we have the hemorrhage into the peritoneum, marked symptoms of acute peritonitis will *probably* ensue. But in this case many of these symptoms, such as tympanites, tenderness over the abdomen, etc., were absent, making it probable that peritonitis, if present, was very slight and circumscribed, and consequently that the hemorrhage was extra-peritoneal. Again, Barnes says that Douglass' cul-de-sac is not symmetrical, but that it extends one or two inches lower down on the left side than on the right. If this be so, and Barnes is quite positive in regard to the matter, we should expect to find on vaginal examination, the bulk or greater part of the tumor on the left side, provided the hemorrhage was intra-peritoneal and into Douglass' cul-de-sac. This, however, was not the case. The tumor was lowest and largest to the right, and its contents escaped by an opening distinctly to the right of the median line. Hence it is probable that in this case the effusion was extra-peritoneal, and in the layers of the right broad ligament.

MALARIAL HEMIPLEGIA.

BY GEO. A. COLLAMORE, M. D., TOLEDO, OHIO.

The occurrence of cases of paralysis, evidently due to malaria, is so rare that I will put on record the following, the only case which has occurred to me in a practice of over twenty years, mostly in a malarial region:

John W., of German parentage, aged eight, was on his way to school, Dec. 9, 1880, in apparently good health, when, without warning, he fell and had a fit. This is the testimony of the children who were with him. That is, he "worked" his arms and legs. He was taken home and I was sent for, but did not see him that day. Dr. Kirkley, who saw him, said the boy was paralyzed and presented about the same appearance as on the next day.

I saw him on Dec. 10. He then had high fever. There was total paralysis of the left side, the muscles of the face, arm, and leg being involved, sensation also destroyed. The eyes were especially affected, being strongly turned to the left, totally blind, and immovable. Speech not affected. Combined with the paralysis was a shaking of the head from side to side, involuntary, and lasting for hours at a time.

On Dec. 11 the paralysis continued. There had been the choreic movements of the head for an hour and a half. He had also a feeling of suffocation and palpitation of the heart. About 4 A. M., Dec. 12, the paralysis had all disappeared and the boy was comparatively well. At the same hour on the following morning he had a chill, followed by fever, shaking of head, also nutation or nodding of head, sense of suffocation, shaking of left arm by spells all night, and stiffness of the muscles of the neck. Temp., 99.6°; pulse, 100.

Dec. 14. Shaking has disappeared, fever slight. Temp., 99.4°. After this the fever entirely subsided and the patient recovered in a few days, and has remained in good health ever since.

The treatment was that appropriate to intermittent fever, mainly quinquina in large doses. A few doses of calomel were also given.

It must be acknowledged that the complete paralysis of both motion and sensation of one-half the body, together with the paralysis of the optic nerves, succeeding a convulsion, presented an array of symptoms sufficiently formidable, and one which might fairly lead one to suppose that some actual, grave physical lesion had been produced in the brain substance, which would render the prognosis very doubtful. For three days, while the paralysis continued, the conclusion could hardly be avoided that the brain had suffered an injury, which would probably result in permanent disability. The occurrence of a chill succeeded by fever on the fourth day, cleared up the diagnosis, and in view of the fact that it did not recur after full doses of

antiperiodics, it was concluded that the case was one of intermittent fever with unusual concomitants.

The appearance of convulsions in children during the existence of a chill or fever of malarial disorders, is sufficiently familiar. They are epileptiform in nature, and are seldom followed by serious results. Authorities tell us, however, that epileptic paroxysms may be followed by hemiplegia with unknown brain lesion, which paralysis is apt to be permanent. West, in his work on diseases of children, reports two cases of hemiplegia attributed to malarial poisoning, both of which persisted for years. In these cases it is probable that some injury was inflicted on the brain substance, which disabled it permanently. At a meeting of the Neurological Society of New York, reported in the *Medical Record* of Dec. 17, 1881, Dr. Gibney read a paper on "Intermittent Spinal Paralysis of Malarial Origin." Two cases were reported, one in a boy of seven, who had five attacks of paralysis of the four extremities, from the first four of which he recovered, but was still uncured of the last after four months of treatment. The second case was that of a boy of six, with paralysis of the legs. From two attacks he recovered, but in the third he had paralysis of all the extremities and died. These cases seem to have been of a different character from the one here reported. Dr. Gibney referred to the fact that intermittent spinal paralysis was very rare indeed, only a few cases having been recorded. He stated that the literature of malarial poisoning is full of neuroses, and that Trousseau thought that very nearly all the symptoms in masked malaria could be explained by referring them to the effect of the poison on the nervous system. Dr. Gibney thought it not difficult to suppose that malarial poison might cause an anterior poliomyelitis, which was the lesion he considered to exist in his first case. He thought his cases were malarial from the fact that they had lived in a malarial country and had had chills.

In the discussion of the paper, Dr. Mary Putnam Jacobi rather dissented from the idea that the cases were of malarial origin, as also did Dr. Seguin. The latter enlarged upon the extreme rarity of paralysis from malarial causes. In many extensive treatises the disease is not mentioned or barely referred to. Dr. Seguin then reported a case of what he termed intermittent post-malarial hemi-numbness.

Dr. Rockwell related a case of intermittent hemiplegia in a man of middle age, which did not prove to be malarial, as after death actual lesions were discovered in the brain. He had seen two unmistakable cases of malarial paraplegia.

Dr. Gray had never seen a paralysis due to malaria. He thought that in the next ten years the attempt would be made to show that malaria is a neurosis, and that now some authors were leaning in that direction.

In the case here reported the pathology is not clear. That there could

have been any actual lesion of the brain is negated by the disappearance of the paralysis and its non-occurrence from the second chill; for I have no doubt that the primary convulsion was in consequence of a chill. The second chill was followed by somewhat different phenomena from the first. The head was nodded as well as shaken from side to side, and the left arm was also in constant agitation, and there was no paralysis.

In regard to the etiology of the paralytic phenomena, the natural suggestion is occlusion of some cerebral artery by an embolus. In consulting Nothnagel's article on that subject in Ziemssen, Vol. XII, I find many confirmatory ideas. I will quote such as are the most appropriate:

"The symptoms which attend the occlusion of a cerebral vessel by an embolus always make their appearance suddenly." * * "It is not uncommon for embolism of the cerebral arteries to give rise to convulsions." * * "In the majority of cases these bear the form of typical epileptic attacks, which invariably come on synchronously with the loss of consciousness." * * "The further history of these cases of occlusion from * * embolism, * * may vary greatly in character: the symptoms may terminate either in death or in complete and permanent recovery; or, after more or less improvement, the attack may recur; or, finally, the district supplied by the occluded vessel may undergo softening, attended with loss of its physiological functions, and the production of permanent morbid symptoms." * * "The motor-paralysis from * * embolism is on the side opposite to the portion of the brain involved. If other vessels are occluded, the paralysis will involve other nerves." "All the different cranial nerves have, at one time or another, been found involved." "The stationary embolic paralyzes are precisely like those due to hemorrhage, one point of difference alone calling for notice, which is, that a few cases have been recorded in which, for a long time after the occurrence of the paralysis, convulsive movements were observed to take place in the paralyzed muscles." * * "In a very few cases of embolism, in connection with the other symptoms, amaurosis, from blocking up of the ophthalmic artery, has been observed to occur with great suddenness." * * "In some instances an improvement takes place in the paralytic symptoms." * * "The possibility of the occurrence of this result plainly turns upon whether the cerebral tissues, robbed of their nutriment, can be sufficiently rapidly supplied with the needful amount of arterial blood by way of the collateral circulation. If this is the case, a rapid improvement may occur, noticeable after the lapse of even a few days. Where this improvement concerns the paralysis not only of single nerves, but of all the affected parts, its occurrence may help us to distinguish the disorder from hemorrhage." "After once recovering, the patients may remain permanently in good health." In the diagnosis between embolism and hemorrhage, he says: "One circum-

stance alone seems to be of almost, though not absolutely decisive importance: when, namely, a condition of well-marked hemiplegia, occurring coincidently with the attack, almost or quite disappears within a few days after it, the existence of hemorrhage as a cause would be very improbable."

CASE OF URETHRO-VESICAL DISEASE.

BY S. W. SKINNER, M. D., TOLEDO, OHIO.

Mrs. L., aged 25, mother of two children, had been troubled with an irritability of the bladder for about ten years. At the time of puberty she began to be unable to hold her water on account of the pain and distress it occasioned. This condition had continued, gradually increasing, notwithstanding a great variety of treatment to which she had been subjected by several physicians, until at the time I first saw her in consultation she was obliged to evacuate her bladder every half hour, day and night, passing about a tablespoonful at a time. The urine appeared to be healthy, but she said that it sometimes contained mucus, and occasionally blood. In consequence of the loss of sleep, and the pain and anxiety she suffered, her general health was much impaired.

I advised the use of iodoform ointment, to be applied to the neck of the bladder by means of a catheter. It was, however, found to be impossible to introduce the catheter any farther than the neck, not through it, and the treatment proved only partially successful. A slight violence in the use of the instrument caused quite a flow of blood and great pain. An examination made while she was under the influence of chloroform, showed that the catheter could be passed without difficulty, but the operation was attended by a flow of blood.

It was now surmised that there was a vascular growth near the neck of the bladder, and, learning that she had been subjected to a treatment by nitrate of silver and perhaps other escharotics, we determined to try the effect of acetic acid applied locally. A suitable syringe was therefore provided, and when she was under the full influence of chloroform, about an ounce and a half of common acetic acid was injected through the urethra. Our patient was aroused at once, and rolling from the bed, commenced a series of contortions which astonished us not a little. The flow of blood was quite profuse, and her distress excessive.

Believing that it would soon pass off, we gave her an opiate and consoled her with the hope of a possible permanent good to be derived from the rough treatment she was suffering from. The next day I found her suffering much pain, not having slept at all during the night. She had passed a little water

with difficulty, and was in a high irritative fever. This condition continued about a week, when her pain and fever very gradually subsided. Her urethra was often obstructed by the passage of plugs of quite firm consistency, having the appearance of being organized matter, and on their evacuation, healthy looking urine followed, and at about the end of a week she was able to retain her urine longer than before the operation, and pleasantly remarked to me that I had nearly killed her, but she guessed I had cured her, for she had slept six hours on the previous night without the passage of urine, and she might have slept longer if she had not been awakened by her baby. The use of the iodoform ointment was now resumed, and she found that she herself could easily pass the catheter into the bladder with little pain and no flow of blood. Steady improvement in her general health and condition has since followed, and our patient is almost as happy as the doctor is to have escaped an unfortunate result.

The lesson to be learned from this case is that the bladder does not tolerate the introduction of substances which are too irritating. That applications which can be made to other mucous surfaces with perfect impunity, are not always borne well by the bladder. Though the results of this case are highly satisfactory, I never expect to pump an ounce and a half of acetic acid into another bladder until every modification of this treatment has failed.

FEIGNED INSANITY.

From the *Etude Medico-Legale sur la Folie*, by Ambroise Tardieu. Translated by Thomas C. Minor, M. D., Cincinnati, Ohio.

If a doubt exists in intelligent minds regarding the exclusive competency of physicians on questions of insanity, that doubt can certainly be dispelled in cases where careful studies of feigned lunacy have been made. It is only by profound knowledge of the real that it is possible to recognize the feigned, and simulation holds a considerable place in the medico-legal history of madness; not that examples of this kind are frequent, but because the expert placed face to face with a person whom justice has commissioned him to examine as to mental responsibility, must, under all circumstances, investigate the possibility of simulation and form a positive conclusion as to whether the insanity to be verified is real. There is, moreover, regarding this subject, an important distinction to be made between the supposition of insanity, or pretended insanity, and the intentional feigning of insanity.

Pretended Insanity.—In the first case, this is only an excuse invoked by the attorney for the defense of his criminal client, instead of a resort to that legal eloquence which, to-day out of fashion, was for a long time the means

used to secure acquittal by a court of justice. As nonsensical and indefensible as such a plea may seem, it is necessary to recognize that it is often employed with success. In such instances the perpetrator of the crime is considered in relation to his pretended insanity, and allows his attorneys to debate the question of his mental condition without aiding them save by a kind of tacit consent, assuming, generally, in the meantime, a passive attitude. But the argument advanced by the defense, has for its support, we might say for its accomplices, on the one hand, the honor of a family seeking to cover up crime by the excuse of insanity and to pass as a lunatic a villain whose disgrace would reflect on themselves, and, on the other hand, a sort of natural tendency, on the part of mankind, to attribute to aberration of reason those offenses which by their grandeur and atrocity, or the apparent strangeness of circumstances under which they were committed, excite popular indignation and harrow the human soul. In a neighboring country the *regicide* is screened by the penal law and treated as insane. I can cite a case in which insanity appeared to offer the only explanation for five murders committed by a nobleman, four of the murdered parties being closely related to the criminal. In another case, a man having killed his wife kept the corpse in the mattress of his bed until it was mummified, and this strange procedure alone seemed enough to authorize the plea of lunacy.

In cases of this kind, justice claims the advice of a medical expert in order to be enlightened as to the value of the pretext. I have often been called in such cases, which are far more frequent than cases of true simulation. Here, the most simple examination is sufficient to determine the truth, for the accused does not take the least pains to imitate insanity or to play the *role* of the lunatic.

The theory of insanity is sometimes advanced by a pandering witness or by an interested relative; sometimes, by a vague notoriety which is established regarding the character and habits of him for whom it is necessary to obtain the legal excuse of lunacy; sometimes the history of an old time disease, or previous attack of more or less pronounced mental aberration, causing, at an anterior period, the confinement of the accused to an asylum. This last circumstance calls for an altogether particular attention on the part of a medical expert. In fact, it is only natural to establish a presumption as to the predisposition of such a person to new relapses; this, however, by itself is no actual and decisive proof of lunacy. It is necessary, under such circumstances, to be very careful in making retrospective inquiries as to former attacks, in order to appreciate exactly their character and signification, and to guard against all causes of error or fraud: also to carefully examine the prisoner as to the crime of which he is most lately accused, exclusive of antecedents. The fact that a man has once been confined in an insane asylum for a transitory mental attack, cannot be deemed a sufficient reason

to account for all the acts he may thereafter commit, even although after a long period of time he might have been suspected of having mental disorder. I have seen numerous cases of this kind and need cite but a few.

A girl detected in petty thefts had, under the garb of religion, an inveterate habit of lying. She was said to be subject to fits, and indulged at such times in unconnected and silly talk that appeared to sound strangely to those around her, but no precise instance could be adduced and the incoherence of her utterance was very naturally explained by the untruths she sought to co-ordinate. She showed, on examination, such a connection and clearness of ideas as to leave no doubt as to the integrity of her reason and a perfect consciousness of her acts.

A man of 55 years, accused of rape, was represented to be a sufferer from mental exaltation at times. He was melancholy and retiring, but this was only his method of hiding methods by the aid of which he satisfied his passions. He presented in reality no signs of mental alienation, and was considered to be entirely responsible for his guilty acts.

A swindler, who, at the moment of his arrest, illegally wore several decorations, attempted to pass for insane, but his excuse was not deemed consistent. "His mother," said one of the witnesses, "considered him slightly insane, but I was never able to notice it." Another witness said: "It is thought by some that he suffered from mental disease, but I never believed it. He made his victim drunk, but remained sober himself." In fact, the examination held at the prisoner's house, and the explanation he offered, made it plainly apparent that his insanity was only pretended.

Simulated Insanity.—Let us now look at simulation properly speaking, at those cases where an impostor, either to escape merited punishment for a crime, or to secure a free living and life of idleness in an insane asylum, plays the *role* and accepts treatment as a lunatic, without foreseeing that such a ruse requires unusual skill and ability in order to prevent discovery, and with no fear of the horrible suffering to which he condemns himself under such circumstances. Simulated insanity under these conditions is rare, but its study, to the medico-legal expert, is one of such great interest that it is important to investigate its character with the most minute care. It is necessary to examine the various forms of simulated lunacy, and the character of the simulation; especially is this true in the absence of physical symptoms of insanity.

Forms of Feigned Insanity.—All forms of insanity are not equally available in simulation. There are those which by the particular ease with which they can be adopted are most tempting to impostors. These are, in the first place, those forms which are accompanied by striking manifestations used for the purpose of impressing the public—the noisy manifestations of lunacy. It is certain that acute mania, with its incoherence, its wild talk, its discon-

nected thoughts, its violence of gesture and words, its irrepressible loquacity, the generality of its delirium permitting all kinds of license to be used, can be adopted by those playing a lunatic part. But I will soon show that attempts to play this *role* are not as easy as one would be inclined to think.

Dementia is less easy to simulate. There is no longer a chance for exaggeration. It is necessary to shade the colors more finely by concealing the intelligence still present, and assuming mental inertia while the mind remains active. The shadows are, in reality, too difficult to detect in this form of mental weakness. I will say the same for idiocy and imbecility, and if you will recollect the characteristics of these original infirmities, which I have elsewhere indicated, you can understand, without the least trouble, why they offer no inducements to even the most impudent simulators. It has happened, however, that some impostors have not been deterred from feigning a physical and moral infirmity, a thing which requires an immense amount of perseverance, will power, and deceit. I wish to speak of deaf-mutes. Dr. E. Renaudin had in his asylum an individual who for three years passed for an imbecile and deaf mute, whose fraud was only discovered by accident, under the influence of the *douche*, which was being used for punishing violence. A more astonishing example still was that of the often quoted deaf-mute who forgot his part and recovered his speech on hearing his death penalty read.

Melancholy insanity and the stupid condition are the most frequent and difficult forms of simulated lunacy to discover. Isolation, stolidity, silence, are characteristics really not difficult to assume, and no matter how little control the simulator may have over himself, he wears a mask behind which it is not easy to penetrate. Seated upon the ground, in the corner of the asylum, with eyes drooping and hands clasped, the impostor may often for a long time baffle the investigations of an expert, and afford the least possible insight as to his real mental condition, although not completely disarming suspicion.

I will not speak of hysterical lunacy: it is deceit and feigning also; but both are here instructive to a certain degree, symptomatic of a rare affection, and cannot be included in the same category and studied from the same point of view as the voluntary simulation of the various forms of insanity by an individual otherwise healthy in mind.

The Behavior of Simulation.—We may say that feigned insanity is, to the eyes of the vulgar, more true than real lunacy; it is the theatrical insanity, that of disheveled hair, attitudes, gestures, strange costumes, songs, vociferations, animal cries, shrieks, dances, contortions, smiles and tears, fury, and other actions without number. This external appearance can only deceive superficial observers. So the most skillful simulators, who have received their education for the greatest part in the society of the insane, or from a

sojourn in lunatic asylums, do not indulge in such gross exaggerations or burlesque comedy; nevertheless they rarely forego the temptation to overdo the manifestations of intellectual disorder. They consider it necessary to keep up without relaxation a complete incoherence, with a perpetual confusion of such things, as names, persons, numbers, dates, days, etc. They consider, like the great philosophers, that a lunatic must have no consciousness of self, nor of his personality. In the famous case of Derozier, of which Dr. Morse has made such a beautiful and striking study, to the demand made as to his age, the impostor, who had hesitated, replied: "Two hundred and forty-five francs, thirty-five centimes:" as regarded his family, his brothers and children—"I have furnished them much money." On a second examination, Derozier was asked whether it was day, and replied: "It is night." On being questioned again as to his age, he replied: "I am king of Beaurais." When asked for his right hand, he invariably extended his left; when the left hand was asked for, he extended the right. Another impostor stated there were eleven hours in the week. A third simulator pretended not to recognize his most familiar friends; he spoke of his physician, whom he saw every day, as a female. All such swindlers act in different manners, but without leaving the circle of the absurd and impossible, never indulging in anything but the most shocking incoherence and the most ridiculous nonsense. That which is most significant, that which contributes an excellent and altogether medical sign of feigning, is the deficient connection between the most necessary and most constant symptoms of the type of lunacy adopted by the simulator. It is a fact that cannot be denied, even by those who may have made a special study of insanity, that there are certain signs that are never found together in the same subject; and that there is an incompatibility between the phenomena which belong to such forms of lunacy. Thus, one will not find in the idiot, or imbecile, any intermittence, nor even a momentary consciousness of his position. Stupidity cannot aid the answers made by a person suffering from dementia. The artificial expression of dullness exhibited by a person laboring under melancholia, does not permit the least ray of intelligence to light up the face, and there is not the faintest suspicion that a question asked has been well understood. There is one irreconcilability, if we may be permitted to use such a term, that is not suspected by the vast majority of simulators. They know that delirium is not always continued, they think the same of dementia and of imbecility, and fall into such discord as to awaken the attention of the expert physician, so that a single contradiction alone may dash the mask from the face of the swindler. The expert can then readily read the truth in the eyes that cannot succeed in hiding intelligence, and in the face which cannot remain immovable and impenetrable.

An habitual habit in those who feign insanity is to suddenly change the

attitude, the face, the answers, when finding themselves closely observed, as for instance when brought into the presence of a physician, or in appearing before a magistrate and jury. Derozier, who played chess with his companions, whenever he saw a keeper pass, disarranged the play by pushing the pieces at random and irregularly. Another impostor, who had behaved with decorum previously, when brought into court performed an act of nature in the full presence of the judge and jury. Among some simulators the memory, which had not appeared to be affected before trial, became faulty; or delirium and incoherence were manifested suddenly, and with the most flagrant exaggeration.

Methods of Discovering Feigned Insanity.—I will now retrace all of the principal features of feigned insanity, and show how the simulator conducts himself; for it is important that the medical expert should know the methods by which impostors may be recognized and exposed; not that there is any one particular method to follow in such investigation, but there are nevertheless some special rules to add to those which are, in a general manner, applicable to the medico-legal determination of simulation.

A first principle, never to be neglected, and which in no case is more appropriate than in suspected cases of feigned insanity, is, *refrain from expressing any opinion until the patient has been subjected to prolonged, repeated, and persevering observation.* Nothing in an examination is more necessary or indispensable. Such observations should be made at all times, if not directly, at least indirectly, by persons familiar with the habits of the insane. For this very useful and important reason, the person suspected should always be transferred to an insane asylum before a positive opinion is given. This is especially the true procedure in those cases where the supposed impostor is confined to jail, where methods of investigation are less surely and less easily applicable. The time during which the pretended lunatic is submitted to this kind of quarantine of observation, is not lost for the manifestation of the truth; in fact, it may be evidenced by the mere contact and presence of the insane, for the impostor changes and suddenly modifies his methods of simulation, thus showing how inconsistent and insincere his symptoms are. On the other hand, the impostor is often badly frightened at the thought of remaining among real lunatics, and abandons the very arduous and painful *role*, on account of the ordeal to which he is submitted.

At this point I boldly affirm that I cannot admit more for insanity than for other simulated affections, and that I denounce all those unnecessary experiments sometimes thought to be essential in cases of supposed simulation, even in those cases where feigning is most justly expected. I repudiate in a positive manner and to the best of my ability, and also ask my pupils and those who use my works as authority to do likewise, those practices which directly or indirectly tend to injure patients submitted for expert examination.

directly or indirectly tend to injure patients submitted for expert examination. For the expert physician has no right to inflict bodily suffering, or expose to danger, a suspected person no matter how great may be the interests of justice in discovering the truth of the case. Chloroform, the douche, burning with hot iron, stupefying or narcotic poisons, such as belladonna, haschhisch or opium, which may so powerfully modify sensibility and the play of the intellectual function—results awaited in order to make a simulating lunatic speak, a supposed idiot reason, or a pretended maniac confess—all methods which cannot be used without inconvenience to health or risk to life, should be sternly banished from the practice of the medico-legal expert. The true expert should be contented to appeal to his experience, and should apply all his sagacity to the service of patient observation; a procedure that will most often lead to a positive conclusion; that is to say, to a certainty in appreciating those processes of simulation which I have previously indicated.

The expert must not lay aside the rules applicable to the diagnosis of insanity, and limit himself to investigating those precise signs which permit the classification of the individual in such and such a group, connecting each species of insanity with such and such a clearly defined type. He need have no dread, when in the presence of a simulator, of danger from a too close categorisation; for one has no business in these cases either with too delicate shades or too indefinitely marked characteristics. It is the contrary rather that takes place, and the problem always returns, in the case of simulation as in the case of real insanity, to these terms, if not very simple at least well defined, to-wit: *determine whether the mental condition is healthy or diseased.*

For this purpose the expert must proceed, with more care than ever, to investigate the moral and physical cause, original and hereditary or acquired, which might explain the development of the insanity, the form it has assumed, and the course it has followed, and also submit to severe analysis the different symptoms of intellectual trouble, their nature, relations and connections.

It is no less important to direct our examination towards the physical symptoms we are accustomed to meet among the insane, and which the simulator is altogether unable to reproduce. In the first place, the insomnia which is rarely missing in acute forms of insanity, cannot be supported by an impostor already fatigued with the efforts required to keep up the part of a simulator. So we see the feigner only too happy to drop his *role* and seek comfort and refuge in sleep—a sleep most commonly profound—so that the first moment of waking, when his ideas though still confused are not controlled by a false delirium, will afford a proper time to observe and surprise the simulation. The appetite among simulators does not offer the irregu-

larity and caprices that are usually met among the truly insane. All that which can bring diversion to the principal work of simulation, is seized with avidity by an impostor, and meantime affords a natural occasion for relaxation which no simulator will allow to slip. The organic functions, digestion, respiration, and circulation, remain perfectly intact in the case of an impostor. Some simulators have been known to essay the reproduction of certain troubles of sensibility, or motility, observed so often in true insanity; as, for instance, anesthesia, paralysis of the tongue or limbs, or palsy. But there are complications which, far from assuring success, have more often the effect of compromising and rendering simulation more difficult; in fact, furnishing the expert a new key to discovery. Finally, the external appearance, the general aspect, are very rarely reproduced with exactitude by those who feign insanity; as, for instance, the physiognomy, the attitude, and the expression of a real lunatic. I boldly affirm that to a skilled expert these signs are those that can be least perfectly imitated, and consequently are least calculated to deceive. It is certainly easy for an impostor to walk with a quick step, stop suddenly, with nose high in air and eyes fixed on the sky, and mutter to himself; as it is likewise easy to act a part in rags or an extravagant costume, but these are only vulgar means which almost always fail, owing to an exaggeration of action, and especially because such action is poorly adapted to the actor; that is to say, to the type of insanity chosen by the simulator.

Dr. Laurent, in a very excellent study has insisted with much wisdom on the particular characteristics offered by an impostor's facial expression. "It is," says Dr. L. "furtive, unsteady, sly. Its form evidences a condition of force, a striking and sufficient discord. The criminal impostor cannot give his features the frightened and excited expressions of the maniac. We recognize only brazen impudence, and not mental aberration. The simulator can not reproduce the true indifferent expression, or weak minded visage, of dementia or paralysis, the vacant stare of the idiot, or the proud and haughty aspect of the mono-maniac. He cannot conceal the attention he bestows on all the words and movements of those who he knows are intrusted to watch his gestures and words; most often he lowers his eyes, as if fearing his expression might betray him."

But there are some particular precepts, exceedingly necessary for the medical expert to remember, as regards simulated insanity. Ruse and dissimulation are characteristic and almost constant traits of the true lunatic, and it is best always to be on one's guard not to confound the simulation of the true lunatic with that of the impostor. But precisely as the first take care to defend themselves from any imputation of insanity, those of the second part strive to exhibit their pretended lunacy. The true lunatic endeavors to excuse all the perturbations noticed in his intellectual functions, and does

not wish to be considered insane; while the impostor endeavors to impress all with the fact of his mental aberration, and never plays the *role* of lunatic better than when in the presence of those who are to judge of his conduct; as, for instance, before a magistrate or physician from whom the real lunatic endeavors to carefully conceal his delirious conceptions.

It is still necessary, in order to appreciate real insanity from simulation, to take into consideration the most serious of three circumstances which are noticeable principally among individuals charged with grave criminal offenses; that is to say, in delicate and intricate cases.

The first consists in the fact that insanity may be developed in a short time after imprisonment, or even at the very moment of the crime which has brought about incarceration, although the criminal act itself may have been perpetrated in a healthy condition of mind. I do not allude here to the methods of confinement in cells, for I have already stated, many years since, and I still persist in thinking, that such a system of imprisonment does not usually produce the effect attributed to it after the mere superficial observations of the mental conditions of prisoners. It is not often that we see insanity developed at the commencement of incarceration, but it is certain that mental aberration sometimes attacks a prisoner at the first moments of crime, favored by a predisposition the least questionable, and produced by the moral shock which the crime caused, together with the fear of punishment. This is a point I wish to strongly impress on those experts who seek to determine the truth regarding real or feigned insanity.

The second circumstance, which no less merits attention, is purely pathological. I speak of the changes which may occur in certain forms of insanity and the natural and spontaneous modifications that go on in the intellectual and moral disposition of those attacked. The expert will run the risk of committing the most serious errors if he mistakes the nature of these changes, and attributes them to the studious and voluntary attempts of a simulator. It is sufficient for me, including all those experts having experience with lunacy, to cite that double form of insanity which may produce, by the simple evolution of its fatal circle, phenomena in appearance altogether unattended by mental alienation; those attacks of periodical mania, where the acute delirium sometimes exhibits itself under such conditions as might lead to the belief that the patient is feigning. In all such cases, the attentive study of antecedents, and of the elements proper to each form of insanity and their particular progress, will permit us to avoid all confusion.

Is it necessary for us to admit that true lunatics may sometimes feign a form of insanity other than that by which they are really affected? Baillarger, Vingtrenier, and Griesinger state that they have observed such cases.

Finally, there is a last point of great delicacy, upon which it is necessary to insist before concluding. This is that simulation itself, however briefly it

may be kept up, finishes, by exercising, an incontestible influence upon the moral and physical condition of those who attempt playing such parts. This is found to be the case even when the simulation of purely physical maladies is essayed; for we see phenomena developed beyond the control of the will, changes in the organism itself; for example, when those who feign paralysis of a limb give the member absolute rest, atrophy of the muscles is induced. It is the same as regards the intellectual faculties, for the imitated mental incoherence, the faulty exercise of the mind, may in the course of time obliterate and falsify the judgment, bring on real mental feebleness, and totally pervert the intelligence and sentiments. It is in moral as in physical attitudes, certain manifestations provoked and simulated at the commencement, become to a certain degree natural, and are instinctively produced without the participation of the will. Those who feign blindness, by keeping their eyes closed for a number of years, are found to be incapable of tolerating the light or seeing; in the same manner as those who feign mutism, and the immobility of the idiot for years, end by becoming really and completely stupid. There is not one among all those who, after having simulated insanity have been discovered, or have given up the attempt of their own accord, have not admitted that they felt themselves becoming insane and that they would not undergo the torture again to save their necks from the hangman. "You cannot appreciate what I have suffered!" cried the unmasked impostor Derozier to the expert Dr. Morse. "I thought I should really go insane, and I still have more dread of becoming a lunatic than of going to the gallèy." This feeling, really sincere among a majority of simulators, may be usefully put to profit by the medico-legal expert, and become a valuable aid in the discovery of feigned insanity.

SELECTIONS.

SURGERY.

THE TREATMENT OF CLUB-FOOT WITH APPARATUS.—Dr. James S. Green, of New York, contributes to the November number of the "New York Medical Journal and Obstetrical Review" an article in which he argues that a great majority of the most intractable forms of club-foot may be treated successfully without the use of the knife. To effect the purpose of safe,

comfortable, and certain reduction of chronic club-foot by mechanical means he remarks, the instrument must perform the following functions: 1. It must effect by extension *the separation* of the articular surfaces of the bones involved exactly in the position in which they are presented by the deformity. The extension should be so complete that the synovial surfaces of the tarsal bones will slide *over* and *not upon* each other when the foot is twisted into its normal position. (This condition being obtained of itself reduces to a minimum the amount of force necessary to be exerted in moving the bones, which are thereby not jammed against each other, the synovial membrane and the cartilages injured, and ulceration of the soft parts made imminent.) 2. It should produce the *gradual* reduction of the foot to a normal position by continuous stretching, acting exactly in an opposite direction to the lines of the deformity.

In talipes equino-varus (the most common form) it should flex the foot, thereby overcoming the contraction of the gastrocnemius and soleus muscles, while at the same time it should abduct the foot, reducing the rigidity of the tibialis anticus and tibialis posticus muscles. It should stretch the plantar fascia, after overcoming the tendo Achillis and during the reduction of the tibial muscles. Withal, the instrument should be light in weight, portable, and easily worn, so that the patient may assist the cure by walking upon the foot which is being gradually extended and drawn toward its normal position. It should be so constructed that, as the opposing tissues yield to the applied forces, the advantage gained, be it ever so little, can be easily seized and retained. The "compound club-foot twister," an instrument employed by the author and his associate, Dr. C. F. Stillman, is described as being so constructed as to twist the anterior position of the foot on the posterior at the medio tarsal joint, and also to gradually and painlessly alter the angle of the foot with the leg at the ankle joint. It consists of a local extender, provided with a slotted arc for graduated movements, placed each side of the ankle joint, and another placed in front of the arch of the foot. Below these are attached to a flexible felt or leather sole, on which the foot is firmly fastened by bandages; and above they are connected to metal terminal plates, which are bound down to the leg by some immobile dressing. This splint allows the foot to be twisted back into shape without pain, as it provides a local extension which relieves the parts from strain and attrition during the twisting, and also allows the patient to walk without interfering with the action of the instrument, the foot being completely under the control of the surgeon. The instrument and dressing used in a case related weighed thirteen ounces.

NERVE-STRETCHING has been abandoned by Billroth after a fair trial. It does not seem to be making a favorable impression in Vienna.—*Louisville Med. News*.

A METHOD OF TREATING SUBCUTANEOUS NEVI.—About a year ago a child aged nine months was brought to me with a nevus about three-quarters of an inch in diameter, filling up the fossa on the left side of the nose. The swelling was entirely subcutaneous, and it was evident that none of the applications which cure the superficial form of the disease would be of any use. The gold needle usually employed in such cases was connected with a battery and introduced into the tumor, but the restlessness of the child (his eye being endangered) made me abandon it. Two lengths of No. 24 silver wire were then passed through the middle part of the swelling, parallel to each other and about a quarter of an inch apart. The zinc and carbon of a Bunsen cell (quart size) were then connected with the ends of each wire separately. The result was great heat in the wire during the short period, one or two seconds, of connection. The ends of the wires were then tightly twisted together, protected by being covered with lint and plaster, and left for the next application, which took place a week later. The current was applied three times altogether. The wires were removed after the third galvanization and no further treatment was needed. The nevus is now hardly perceptible.

This mode of using the galvanic current in the deeper nevi appears to me to be recommended by its simplicity and freedom from danger. There is less pain than is caused by the usual introduction of the needles at each operation, and a single cell (bichromate, Grove's or Bunsen's) is sufficient, the only resistance being the fine silver wire.—*Carey Coombs, M. D., in London Lancet.*

DEPILATORY POMADE :

R.	Sodii carbon.....	3j.
	Quicklime.....	3ss.
	Charcoal powder.....	gr. viij.
	Glycerine.....	f. 3j.
	Lard.....	3 viij.
	M.	

After applying this to the affected parts for ten or twelve days, the skin takes a rose tint, and the hairs may be drawn out without pain.

OPERATIVE ASSISTANCE IN INFANTILE PARALYSIS.—Some cases recently operated on by Prof. Albert have excited a good deal of interest. Struck by the fact that many subjects of infantile paralysis are condemned to the life-long use of more or less complicated apparatus to compensate for the loss of rigidity in the lower limbs, and that the poor cannot get such instruments, he has attempted to increase the use of the legs by operation. He excises the knee and ankle joints, and thus obtains bony ankylosis between the femur and tibia, and tibia, fibula, and astragalus. The rigid lower limbs in walking

are swung forward by the abductor and great flexor muscles of the hip-joint, which generally retain or recover their power. / This treatment has already been carried out in four cases, and a fifth is now preparing for operation.—*Lancet*.

WOUNDS OF THE LUNG.—In the *Lancet*, October, 1881, are recorded two interesting cases of recovery from severe wounds of the lung. Surgeon-Major T. M. O'Farrell's case was that of a porter. A sword-bayonet entered the right axilla, having first penetrated the muscles of the arm. Immediately his mouth filled with blood, and he felt very faint. When seen, twenty minutes afterwards, he was very faint, and complained of great oppression about the chest; his pulse could scarcely be felt, and now and again he gave a short cough, when a stream of blood issued from his mouth. In nineteen days the man was sufficiently recovered to walk about. The case is a good instance of the comparative impunity with which a young and healthy man may receive injuries of so delicate and complex an organ as the lung. Dr. Holmes' case was very singular. A miner, standing at the bottom of a shaft 225 feet deep, was wounded by a drill that fell from above. The drill measured three feet in length, and weighed eight pounds and a half. The bit of the drill struck his back near the superior angle of the left scapula, emerging in front, on a line with the left nipple, fracturing the sixth rib. The wound was eight inches and a half in length. The drill passed through the man's body almost up to its head. The patient called upon some of his comrades to pull out the foreign body, and two men laying hold forcibly extracted it, considerably tearing, in the process, the lung and flesh. When admitted into the hospital the patient was bleeding freely, and in a fainting condition. Air at every respiration passed, with a gush of blood from each aperture. Sixteen days after the wound, the patient walked out of the hospital to see some street demonstration, and in two months he felt nearly as strong as ever. The lung, however, had shrunk to about two-thirds its natural size.—*Hosp. Gazette*.

CARTHAGO EST DELENDA—THE DEATH OF THE CARBOLIC CRAZE!—To every thoughtful man it must be perfectly humiliating, from the scientific standpoint, to reflect on the surgical fanfaronade which, for the past few years, agitated not only the profession, but the public, in connection with carbolic acid, and now to read in the editorial columns of a contemporary, "We may say that the day of carbolic-acid is over." . . . "The spray has been abandoned by many surgeons, and even Mr. Lister has spoken in qualified terms of its necessity; and had we to prophesy, instead of to record accomplished facts, we might venture to predict an early abandonment of this cumbrous addition to a surgeon's armamentarium." All this is

precisely what all sensible men knew sufficiently well to be inevitable. But what of the great "cures" that have been accomplished by means of carbolic acid? What of the children who have first entered the "vale of tears" through its incense? What of the ephemeral reputations based on this illusory theory? What of the numerous papers which have appeared in our journals from so many incapable of forming correct judgments, but anxious as to the chance of advertising? We are getting back to where we were before the famous carbolic acid theory was propounded; but medical science cannot fail to suffer from such insensate outbreaks of surgical fashion, nor can the contempt of all intelligent members of the profession be withheld therefrom.—*Med. Press and Circular*.

HOT WATER IN THE TREATMENT OF HEMORRHOIDS.—Lanpowski suggests hot sitz-baths in bleeding piles, together with enemata of hot water. These not only check the bleeding, but diminish the size of the turgescient tumors to a marked degree. In ordinary cases three sitz-baths per diem may be employed. In bleeding piles the baths should be more frequent, and the enemata should be given as hot as the patient can bear (usually about 104°).

MEDICINE.

METHODS OF ADMINISTERING CHLORAL HYDRATE.—Dr. Kane, in the *Chicago Medical Journal*, makes some interesting suggestions respecting the use of chloral. When administering chloral we should be certain that it is pure. Bouchet gives the following test as being sufficiently reliable for roughly determining its purity:—"By taking chloral in a chrystallised, needle-shaped, or snow-like mass, it will, in all probability, be acceptable; but to be certain of its purity it must be tested with a concentrated solution of potash. If the chloral is pure it will color the potash solution possibly a very light yellow, and emit an unmistakable odor of chloroform. If it is absolutely pure the solution will remain uncolored. If a brown color shows itself and there is given forth the odor of chloroform mixed with chloratic vapors, or gases of an acrid and disagreeable smell, it is impure." It should be administered in the majority of cases by the mouth or rectum. If given hypodermically it is apt to produce deep-seated and superficial inflammation and abscesses. The intra-venous method is to be used only in the rarest instances, and is always dangerous. When chloral is given by the mouth it should always be in solution. I prefer a simple aqueous solution of ten grains to the drachm, and order separately syp. tolut., and let patient add a drachm or two to each dose of the chloral solution at time of taking; and to overcome the irritating effect of the chloral upon the buccal, pharyn-

geal, and gastric mucous membrane, have patient eat a little something, say a cracker, before taking the dose.

Chloral hydrate is peculiar in that it acts with about the same rapidity and intensity when given by the rectum as when given by the mouth. It has been found of great advantage to give it in this way, in two classes of cases:—1st. Those where, owing to some spasmodic or convulsive affection, it is impossible, or very troublesome, to give it by the mouth. 2d. In cases where, from inflammatory affections of stomach or throat, it is not deemed advisable to give this drug by the mouth owing to the possibility of causing local irritant action. When given as an enema, in pure water, it often causes irritation of the mucous membrane of the rectum; to overcome this it may be beaten up with raw eggs and milk. It is best exhibited, however, as a suppository, always bearing in mind that as it is a solvent of fats and cocoa butter, the usual vehicles for suppositories will not answer unless used in connection with white wax or spermaceti. — *Detroit Lancet*.

Da Costa considers ergotine the best remedy for the night-sweats of phthisis—two grs. three or four time a day. It is less prompt than atropia, but it is free from any unpleasant after effects.

HICCOUGH CURED BY COMPRESSION.—A case is cited from a French journal, in which hiccough which had been “incessant for fifty days,” was cured in five minutes by a powerful compression over the epigastrium. All other conceivable means had failed.

NITRE TABLETS FOR ASTHMA AND INSOMNIA.—Dr. Wm. Murrell, in the *British Medical Journal*, writes: There can be no question as to the value of fuming inhalations in the treatment of asthma. The ordinary nitre-paper often fails, because it is not strong enough. For some time past I have been in the habit of using very thick and strong nitre-papers, which may be called “nitre-tablets.” They contain both chlorate and nitrate of potash. Each consists of six pieces of white blotting paper, about six inches square, and they are made by dipping them into a hot saturated solution of nitre and chlorate of potash. Before the pieces are quite dry, they may be sprinkled with Friar’s balsam, spirit of camphor, tincture of sumbul, or some aromatic. The nitre-paper so prepared is as thick as cardboard, each piece consisting of six pieces of blotting-paper, closely adherent, and covered all over with crystals of saltpetre and chlorate of potash. The door and windows having been closed, the tablet is placed on a fire-shovel or piece of metal of some kind, and folded down the middle, so as to make it like a tent or the cover of a book. When lighted at each end it burns very quickly, throwing out a flame often four or five inches long, and giving rise to dense volumes of smoke. The 1.—3.—5.

asthmatic patient almost immediately obtains relief, and drops off into a quiet slumber, from which he awakes refreshed. These tablets often succeed when the ordinary nitre-papers do no good. They nearly always induce sleep, and I have used them with success in cases of insomnia when most of the ordinary remedies have failed. Large pastils composed of equal parts of nitre and lycopodium are also useful in asthma.—*Chemist and Druggist.*

REVIEWS AND BOOK NOTICES.

Prices are always inserted when furnished by the publisher, or when obtainable from the bookseller.

A System of Surgery, Theoretical and Practical. In treatises by various authors. Edited by T. Holmes, M. A. Cantab, Surgeon and Lecturer on Surgery at St. George's Hospital, etc. First American from second English Edition, thoroughly revised and much enlarged. By John H. Packard, M. D., etc., assisted by a large corps of the most eminent American surgeons. In three volumes. Vol. II. Philadelphia: Henry C. Lea's Son & Co. 1881.

The first volume of this system was noticed some months ago. This one treats of the Diseases of the Organs of Special Sense; of the Circulatory System—including an entirely new section on the injuries and diseases of the Absorbent System, by S. C. Busey, of Washington; of the Digestive Tract, and of the Genito-Urinary Organs. The American revisers are: on the Eye, Geo. C. Harlan; Ear, Chas. H. Burnett; Nose, J. S. Cohen; Tongue, Chas. McBurney; Veins and Arteries, Lewis A. Stimson; Mouth, J. W. White; Teeth, James Truman, D. D. S.; Intestines, J. H. C. Simes; Rectum and Hernia, John H. Packard; Urinary Organs, Calculi, Lithotomy and Lithotripsy, Edward L. Keyes; Male Generative Organs and Gonorrhea, J. W. White; Surgical Diseases of Women, A. J. C. Skene.

The copious additions made by the revisers, serve to fully carry out the original idea of the publishers—to Americanize the book. Each reviser is an adept in the subject assigned him, and the work has in consequence been admirably done.

The Anatomist, being a complete description of the anatomy of the human body, intended for the use of students preparing for examination at the Royal College of Surgeons and other medical bodies. Second Edition, improved and enlarged by the addition of 171 wood engravings. By M. W. Hilles, formerly lecturer on anatomy and physiology at the Westminster Hospital school of medicine, etc. New York: G. D. Putnam's Sons. 1881. 16mo. Pp. 360. Cloth.

This is very like other works of its kind. It possesses the advantage of being thoroughly illustrated, although occasionally the cuts are so small as to diminish their value.

That these books always sell well, is no particular recommendation for them.

The Student's Manual of Venereal Diseases, by Berkeley Hill and Arthur Cooper. Second Edition. New York: Wm. Wood & Co. 1881. 8vo. Pp. 62. Paper. Price, 10 cents.

We need not allude to the book itself, as this is sufficiently well known, but rather to the style and *price*. The type is large and clear, and the paper of good quality.

Transactions Michigan State Medical Society for the year 1881.

We have here seven papers of which five are written by Detroit Professors.

President Thomas' address is on the subject of Civil Malpractice, which is well presented although nothing new is developed.

Prof. Lundy has a paper on the treatment of acute Glaucoma by Eserine, in which he reports *one* successful case.

Prof. Reynolds presents an illy prepared paper, less than a page in length, with the curiously mixed title—"Treatment at Birth in Congenital Club-Foot."

Prof. Lyster's paper consists of Clinical Notes on a Case of Pneumonia. The monotony of the printed page is diversified by no less than thirteen prescription formulæ—not one of which is correctly written. An analysis of the treatment reveals that the unfortunate young man took: sulphate of quinine, opium, rosemary, cinnamon, cloves, nutmeg, red saunders, lavender, valerian, chloroform, syrup, svapnia (!), camphor, spir. Mindereri, gelseminum, Dover's powder, veratrum viride, whiskey, ammonia muriate, quinia muriate, cantharides (externally), chlorinated tincture of iron, sage tea, belladonna (externally), ammonium iodide, sanguinaria, cinchona, orange peel, serpentaria, belladonna, hyoscyamus, conium, sulphuric acid, ginger, taraxicum, iodine (externally), claret wine, catawba wine, potassium iodide, codia, yerba santa, ipecac, prunus Virginiana, morphia muriate, coca, cod

liver oil, maltine wine, and extract of malt. The patient was fortunately young and possessed of a vigorous constitution; and so escaped.

Prof. Leonard ("C. Henri") reports a case of uterine retroflexion, treated by "*my* new uterine repositior," and a "bolus" of cotton, "soaked in *my* glycerole of tannin dressing."

Prof. Smith's paper, on Granular Lids, contains nothing new whatever.

Dr. Burr, assistant physician in the Pontiac Insane Asylum, reports a number of cases of epilepsy treated by *Cocculus Indicus*. He uses one or two drops of the fluid extract thrice daily. His conclusion is that those patients, in good bodily health, whose seizures are accompanied by maniacal excitement, seem to be the ones most likely to receive benefit.

Dr. Brown, of Monroe, reports an interesting case of Intra-peritoneal Hematocele.

The report of one committee deserves a passing notice; namely, the committee to which was referred the matter of so changing the constitution of the Society as to make it purely a delegate body. The report is adverse to the change, on the ground that the Northern Peninsula has no county medical society whatever, while in the Southern Peninsula the societies are limited to the extreme southern portion; so that the proposed change would practically bar out all the upper peninsula, and two-thirds of the lower. The opinion of the committee would seem, therefore, to be a very natural and judicious one.

The State of Michigan has no cause to be proud of this volume of Transactions of its representative Medical Society.

The Nurse and Mother. A Manual for the Guidance of Monthly Nurses and Mothers, comprising instructions in regard to pregnancy and preparation for childbirth; with minute directions as to care during confinement, and for the management and feeding of infants. By Walter Coles, M. D., Consulting Surgeon to St. Ann's Lying-in Asylum, St. Louis; Member of the St. Louis Obstetrical and Gynecological Society, &c., &c.: J. H. Chambers & Co., Chicago, Ill.; St. Louis, Mo.; Atlanta, Ga., 1881. 8vo. pp. 153.

The average monthly nurse of to-day differs but little from her prototype, the "Old Granny," of a former period. She is far too often a "queer mixture" of meddlesome ignorance, self-importance, and absurd superstitions. It is rare that one meets in the lying-in chamber a nurse who is able to pass a catheter, properly administer a rectal or vaginal injection, or who can understand her relation to the physician in attendance. It will be a happy day for physician and mother when monthly nurses possess the intelligence and special training fitting them for the responsible duties of their vocation. The little tract before us seeks to impart that information, without which no one can render intelligent and efficient assistance in the lying-in room.

We can strongly endorse Dr. Coles' Manual. It is written in a pleasant style, and contains a vast amount of information, valuable alike to mother and nurse.

We would, however, protest against trusting the nurse with the administration of anesthetics to the extent the author does. While it is true that chloroform accidents are rare in midwifery practice, it is unwise to push the "*special immunity*" idea too far. We should also unhesitatingly condemn the following practice: on page 82, our author says: "In some instances the doctor deems it necessary to wash out the cavity of the womb; this operation should always be performed under his immediate supervision." Intra-uterine manipulations, of whatever kind, come within the province of the physician, not that of the nurse.

While highly endorsing the general character of the book, we may sadly ask, *Cui bono?* Dr. Coles' Manual contains nothing new to the professional reader, and will probably never reach the class for whom it was written and whom it would largely benefit. Perhaps it would be the part of wisdom, at this gift-making season, for every physician to present a copy to those nurses whom he is accustomed to meet in his obstetric practice. Both giver and receiver would thereby be benefited.

W. J. C.

The Therapeutics of Gynecology and Obstetrics, comprising the Medical, Dietetic and Hygienic Treatment of Diseases of Women. Second edition. Thoroughly revised and greatly enlarged. Edited by Wm. B. Atkinson, M. D. Philadelphia: D. G. Brinton, 1881. 8vo. pp. 571.

The appearance of a second edition so soon after the first sufficiently indicates the favorable reception which has been accorded Dr. Atkinson's work.

The text of the present edition has not only been carefully revised, but nearly two hundred pages of new matter have been added. The new matter includes discussions on the Use of Antiseptics in Labor, Disorders of the Eye in Pregnancy, Placenta, Previa, and other subjects. The book is not a mere collection of formula, but each chapter is prefaced with a synopsis of diagnostic points, stating briefly but clearly the distinctive features of the diseases considered in the chapter.

In its present form it very truthfully reflects the approved therapeutic methods of the most eminent authorities in the department of medicine of which it treats.

Dr. Atkinson's *Therapeutics* is therefore a most excellent one, and will prove "a refuge and strength" to the busy practitioner in emergencies.

It can not supercede the more systematic works on Diseases of Women and Obstetrics which should be found in every library. Just so far as it furnishes an excuse for lazy practitioners to neglect the standard authorities on these subjects, it will do harm.

W. J. C.

Nervous Diseases, Their Description and Treatment. A Manual for Students and Practitioners of Medicine. By Allen McLane Hamilton, M. D. One of the attending physicians at the Hospital for Epileptics and Paralytics, at the Hudson River State Hospital for the Insane, etc., etc. Second edition, revised and enlarged, with seventy-two illustrations. Philadelphia: H. C. Lea's Son & Co. 1881.

To the first edition of this book was accorded a reception very flattering to its author. There has been added to it about one hundred pages of new matter as needed to adequately note the progress of neurological science. The chapters dealing with the subject of *localization* have been improved and enlarged. The diseases of the lateral columns of the cord, about which hangs so much obscurity, have received close study from the author, and his conclusions are clearly expressed.

Dr. Hamilton's book is of a convenient size for a manual, while its scope is sufficiently ample for all practical purposes. It is cordially commended both to students and practitioners.

Essentials of the Principles and Practice of Medicine. A hand-book for students and practitioners. By Henry Hartshorne, M. D., lately Professor of Hygiene in the University of Pennsylvania, etc., etc. Fifth edition, thoroughly revised and improved, with 144 illustrations. Philadelphia: Henry C. Lea's Son & Co. 1881. Cloth. 8vo. Pp. 670. Price, \$2.75.

This hand-book for the student is somewhat of the nature of a concentrated extract. It is hence of value chiefly to those who, while attending lectures, are compelled to take their mental medical pabulum in as condensed a shape as possible. Practitioners, and students with more leisure, will hardly find it to meet their wants.

The work of compression has been well done, and there is an immense amount of information contained in this work.

Index Catalogue of the Library of the Surgeon-General's Office, U. S. A. Compiled by Dr. J. S. Billings. Vol. II. Berlioz-Cholas. Pp. 990. Washington: Government Printing Office. 1881.

The Index Catalogue is a fitting testimonial to the energy and industry of Dr. Billings, whose labor in compiling it has been a labor of love. The second volume, now before us, contains, in alphabetical order, 11,550 subject-titles of separate books and pamphlets, and 37,310 titles of articles in periodicals. A better idea of the practical value of the catalogue may be obtained from the fact, that in the present volume, 67 pages are occupied by a mere enumeration of writings on the Blood; 81 by those on the Brain; 24 on the Bones; 37 on the Bladder; 35 on Calculus; 25 on Cancer; 23 on Cataract, and 31 on the Chest.

Lectures on Electricity (Dynamic and Franklinic), in Its Relations to Medicine and Surgery. By A. D. Rockwell, M. D., Electro-therapeutist to the New York State Woman's Hospital, etc. New York: William Wood & Co. 1881.

These lectures appeared first in the *Virginia Medical Monthly*. While the practical therapeutic applications of electricity are discussed sufficiently in this work, electro-physics or electro-physiology are also included in the author's range, though rather as a summary than an instructive treatise.

The tonic and soothing virtues of general faradization are dwelt upon with emphasis. The Franklinic revival gets little help from the author. Brief mention is made of the induction balance, and galvanic accumulator.

The book is well written, is gotten out in very neat style, and is profusely illustrated.

The Science of Art and Midwifery. By William Thompson Lusk, A. M., M. D., Professor of Obstetrics and Diseases of Women and Children in the Bellevue Hospital Medical College; Consulting Physician to the Maternity Hospital, etc., etc. With numerous illustrations. New York: D. Appleton & Co. Columbus; Geo. W. Gleason. 1882. Pp. 687. Cloth. \$5. Leather, \$6.

This treatise is of a decidedly modern type. The author aims to show that with advancing knowledge the art of midwifery has ceased to rest upon empirical rules, and is already, with rare exceptions, the natural outcome of scientific principles. The description of the development of the ovum and its changes in the uterus is very thorough and complete, while the admirable manner in which the chapters on the art of successful delivery are written constitutes one of the best features of the book. Nothing which it is important for the practitioner to know is lost sight of in the directions given for managing labor of all kinds, as well as accidents and abortions. Copious references are given to native and foreign authors for all important statements made, so that any one may refer whenever desired for confirmation and further information to these authorities. We know of no work which can be more conscientiously recommended to students and physicians.

The Opium Habit and Alcoholism. A treatise on the habit of Opium and its Compounds: Alcohol; Chloral; Chloroform; Bromide Potassium, and Cannabis Indica, including their Therapeutical Indication, with suggestions for Treating Various Painful Complications. By Dr. Fred Herman Hubbard. New York: A. S. Barnes & Co. 1881.

The paper is excellent in this book, and the binding very neat; but here all praise must abruptly cease. The type is worn out, and the press-work poor,

The object of the author in writing the book seems to have been to advertise himself. His spelling is bad, his grammar worse, his Latin worst; while the matter itself is eminently unscientific and valueless, and serves to reveal the ignorance and conceit of the author. For example, he explains the thirst that opium users experience, by saying that the "Opium superinduces a thickened state of the fibrin and brings about an accumulation of effete matter, which renders functional action through the medulla oblongata slow and laborious, and creates a demand for water by drying up the mucous coats of the mouth," etc.

The author treats by gradually reducing the opium and substituting other narcotics and stimulants to relieve the craving.

New Journal—The American Medical Digest: New York; Campbell & Co., 21 Park Row. Pp. 48; Price \$3.00. Editor, John C. Lester, M. D.

This journal seems in its matter closely fashioned after the St. Louis *Brief*, and adds to its olla-podrida everything it can find commencing with the mystic "R." The names of Skene, Mathewson, Sturgis, Fox and Shaw, are appended as "contributors," but we fail to find any contributions from any of them, while the abstracts themselves seem to be all second-hand. The paper is good, and the type and press-work tolerable.

SOCIETY PROCEEDINGS.

MEDICAL ASSOCIATION OF DELAWARE COUNTY, OHIO, JANUARY 10, 1882.

The Association was called to order by President Dr. F. W. Morrison.

Members present, Drs. Welch, Cherry, Westbrook, Morrison, McDowell, A. W. Dumm, White, Constant, Hedges, Ropp, Hughs, Mercer, Keefer, S. C. Dumm, McCann, Crickard, McIntire, Coomes, Richards, and Clute.

Visitors, Dr. Goldrich of Delaware, and Dr. W. E. Benton, of Little Sandusky.

This being the annual meeting the election of officers for the year 1882 was held, which resulted as follows:

President, Dr. W. F. Ropp; Vice President, Dr. J. W. N. Vogt; Secre-

tary, Dr. W. F. Clute; Cor. Secretary, Dr. A. H. Keefer; Treasurer, Dr. J. M. Cherry; Librarian, Dr. F. W. Morrison.

Dr. A. W. Dumm read an interesting paper on Rheumatism.

Dr. McDowell said he was not enthusiastic upon specific remedies in any disease, but thinks salicylic acid a specific for rheumatism, if there is a specific. Thinks that we are afraid to give it in doses large enough. Pain will disappear in forty-eight hours, and profuse sweating will be produced with decrease of urates in the urine. Must continue the acid for three or four days after symptoms have subsided. Prefers the salicylic acid to the alkaline treatment.

Dr. Welch did not know anything about the acid, and but little about rheumatism. Attended a young lady with acute rheumatism with ankle joint badly swollen. Gave Dover's powder, and had ankles wrapped up in towels wet with cold water; next morning patient was able to be about. Attended another case, a woman; gave nitrate of potash and opium, and found it to be an excellent remedy in grain doses; thought he had a specific, but found by experience that he had not. Believes that no such thing as a specific for rheumatism has ever been discovered. It frequently occurs in healthy people without a depraved condition of the blood. Causes as various as causes of other diseases.

Dr. Goldrick thought there were many remedies, but no available ones. Nothing but constitutional treatment is of any use.

Dr. Hedges believes it well settled that the blood in rheumatism is always acid. Thinks salicylic acid superior to other remedies. Does not advocate large doses of the acid. Uses nothing else with it except sustaining remedies. Says alkaline treatment will always stand.

Dr. Constant thinks one remedy has really as much reputation as another. Main question is, to decide *when* to use the remedy. Uses salicylate of soda most, because the acid disagrees with the stomach. Uses salicylic acid in plethoric patients, and salicylate of soda in anemic ones, with excellent results.

Dr. S. C. Dumm said the causes were so different that we cannot lay down any special form of treatment. Tinct. ferri chloridi is often as good a remedy as can be found in chronic rheumatism. Aconite a good remedy in some cases. Related a case where he had left aconite, and by mistake about ten times the amount ordered had been given; was sent for, and found the patient suffering from all the symptoms of aconite poisoning; administered the proper restoratives, and patient recovered, cured of the rheumatism. Thought he had found a specific, but discovered his mistake upon further trial of the aconite. Says that the physician ought to see to it that the patient is bathed frequently.

Dr. White said he was a regular quack on rheumatism. When he treats a

1.—9.—6.

case and cures it he never knows how to treat the next. Cannot tell what to do until he sees the case, and has used all kinds of treatment. Once left *veratrum viride*, and the patient was over-dosed; cured the rheumatism. Thought he had a specific, but was afterward undeceived.

Dr. McIntire never met with any benefit from salicylic acid. Has used all the general remedies, and finds none of them to be a specific.

Dr. Ropp has had no good results from salicylic acid. Once treated a lady for inflammatory rheumatism with aconite and gelsemium. She was overdosed and symptoms of poisoning produced, but the rheumatism was cured; then he treated a man with the same remedy, using large doses until tingling in the fingers resulted; rheumatism not cured, and his visions of a specific vanished.

Subject for discussion at next meeting, Diphtheria. Essayists: Drs. Hughes, Fay, and Hedges.

Retiring President Dr. F. W. Morrison delivered a valedictory address, full of witticism and humor, which was well received by the members of the Association.

Votes of thanks were tendered Dr. Morrison and the secretary, Dr. Clute, for the able manner in which they had discharged their official duties, and for their gentlemanly bearing towards the members.

The following resolution was then unanimously passed:

Resolved, That no member of this Association shall take by contract the city and township pauper business at any price whatever by the year, under penalty of forfeiting his membership in this Association.

Adjourned, to meet again upon the second Tuesday in February.

W. T. CLUTE, M. D., Secretary.

BUCYRUS, OHIO, JANUARY 16, 1882.

The physicians of Bucyrus, Ohio, met at the office of Dr. Geo. Keller Monday, January 16, 1882, at 2 o'clock P. M., for the purpose of expressing their feelings in regard to the death of the late Dr. Francis Von Meyer. On motion, Dr. C. Fulton was called to the Chair, and Dr. Keller elected Secretary. The Chair selected as Committee on Resolutions, Drs. M. C. Cuykendall, Geo. Keller and Georgia Merriman. Committee offered the following report, which was adopted:

WHEREAS, An all wise Providence has removed from our midst our former friend and fellow Dr. Francis Von Meyer.

Resolved, That in his death not only our profession but society has suffered a great loss.

Resolved, That we have always found him a genial, warm hearted friend, ~~possessed of that modesty~~ ever indicative of true greatness.

Resolved, That we attend the funeral in a body and wear the accustomed badge of mourning.

Resolved, That the Secretary be requested to furnish the minutes of this meeting to the papers of the town, and to the OHIO MEDICAL JOURNAL, and that a copy be sent to the relatives of the deceased in Stuttgart, Germany.

Meeting then adjourned.

C. FULTON, M. D., Chairmen.

GEO. KELLER, M. D., Secretary:

CORRESPONDENCE.

EDITOR OF JOURNAL:—I am glad to read the proposed "Act" in your December number. In section IX, it should read, * * * "continue in the practice of medicine," Obstetrics, or Surgery, or any branch belonging thereto, "in this State, shall," etc. It will be necessary to use the word "Obstetrics" in order to cut off this abominable horde of midwives who do three-fourths of this work, and never cease to slander the regular profession.

I reported five obstetric women who held themselves for public service, charging from \$1 to \$3 per case, to the Prosecuting Attorney of this (Washington) county, and after carefully reading our existing State law, he laid the case before the bar of Washington county, at Marietta. They discussed it at some length, and not being able to decide in his own mind, after the discussion, he told me that under the present law it was "a question," as to their right so to practice and *charge* therefor, and he would not bring action against them,

One of the Bar, an ex-Prosecuting Attorney, said he could easily make a jury believe that the "practice of medicine" did *not* include obstetrics, and hence these women were not violating the law; and *this* was the view taken by the majority.

Again, why not fight it out, and issue certificates to none but graduates, as evidence of ten years practice can easily be procured by every scoundrel? The fine in Section X, is *rather small*.

Again, as to druggists and pharmacists; almost daily I see the pernicious work of friendly (?) advice, and furnishing of medicine by druggists. Tighten up the screw legally; or let the profession withdraw its patronage.

Again; in Section IX, fourteenth line, "To practice medicine *in* and

from the place designated," leaves it foggy, and a doctor would have no right to practice outside of the country in which he has registered his certificate; at least a foxy lawyer would thus render it.

I think a "life office" in any of the departments will render the thing *foul*, and deaden the interest of other medical men of equal, or superior ability.

I feel a deep interest in the passage of this "Act," and shall post our Representative in the matter.

Respectfully,

MANLY H. SPRAGUE, M. D.

Beverly, Washington County, Ohio.

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SPONGE GRAFTING.

This seems to bid fair to be a valuable acquisition to surgery. The process consists in introducing into an ulcer, for example, a piece of sponge, which acts as a stimulus to the reparative process, and is then absorbed and eliminated. Dr. D. J. Hamilton, of Edinburgh Royal Infirmary, introduces the method, and, in the November number of the *Edinburgh Medical Journal*, reports his experiments, with the practical conclusions to which they led him.

In a paper prepared several years ago, Dr. Hamilton stated that the vessels of a granulating surface are not newly formed, but are merely the superficial capillaries which have become displaced, being thrown up into loops by the action of the heart, the restraining influence of the skin having been removed. While making these observations, he was impressed with the similarity of the vascularization, as seen on a granulating surface, and

that which occurs when a clot or fibrinous exudation is replaced by a vascular cicatricial tissue. He came to regard the clot or lymph as merely playing a mechanical part, in any situation where it became replaced by a cicatrix, and that vascularization was not due to a new formation of vessels, but rather to a pushing inwards of those already existing in the surrounding tissues.

This being the case, it seemed to him that if some dead porous animal substance could be substituted, it would, after a time, become vascularized and replaced by cicatricial tissue. An accident suggested to him that sponge was the material sought, it being porous, like the fibrinous network in a clot, and thus capable of absorption, while it was so pliable as to permit of its adaptation to surfaces and cavities.

Dr. Hamilton reports five experiments in which these conclusions are fully sustained. One of these will suffice: A woman had several ulcers on different parts of her body. One of these, five inches in diameter, and from half to three quarters of an inch deep, was on her leg. The edges were indurated, raised, and, in places, undermined, while a slough at the deepest part of the wound gave the whole a putrefactive odor. Aug. 3d, 1880, he filled this ulcer, which was granulating at the bottom, with pieces of very fine sponge, prepared by dissolving out the salts by means of dilute nitro-muriatic acid, and subsequently washing in liquor potassæ, and then steeping in a 1 to 20 solution of carbolic acid. The sponge in the central part rose a little higher than the edges. It was fitted to the wound very accurately, and was inserted beneath the undermined edges. A piece of protective was placed on the surface, covered with a pad of boracic lint, and an ordinary bandage applied; the patient being kept in bed with the limb at rest.

The wound was dressed daily, but the sponge was not disturbed. On January 5th, 1881, the patient was exhibited to the Medico-Chirurgical Society, when it was found that not a vestige of the sponge remained, but that the wound had changed to a superficial, typical, granulating surface, measuring about one and one-half inches across.

Dr. Hamilton's idea is that if sponge be placed over a granulating surface, its interstices will become filled with blood vessels and cicatricial tissue, just as in the case of a blood-clot, and that ultimately the sponge will disappear in the wound, leaving an organizing mass of new tissue in its stead. The porous spaces in the sponge appear to be admirably adapted for this, and afford support to the young vessels. Even if the wound continues in a putrescent condition, organization will still go on, while in the case of the blood clot, putrefaction tends to prevent it.

We shall await with interest further developments of this line of treatment at the hands of other surgeons.

NOTES AND COMMENTS.

PROGRESS.—Mrs. Dr. Agnes M. Johnson, of Zanesville, was recently elected, unanimously, assistant physician so the Athens Insane Asylum.

“KANSAS CITY is to have a new medical college. If we mistake not this is the *eighth* in the State of Missouri. This beats Ohio, or any other State.”—*Detroit Lancet*.

The *Lancet* fails to fully appreciate the amount of medical talent in Ohio. We have at least ten medical colleges in this State, and one or two more are apparently in the embryonic condition; while still another, which was fondly supposed to be dead—by its enemies, at least—is beginning to manifest a highly inconsistent, not, indeed, to say indecorous, degree of interest in the funeral exercises.

VALUE OF VENTILATING SEWERS.—The town of Padstow, in Cornwall, is said to furnish an excellent example of the value of thoroughly ventilating the sewers (*Med. Times and Gazette*). Acting on the recommendation of Dr. Blaxwell, the Local Government Board Inspector, the local authorities have, during the last eighteen months, put into practice the course advocated at the meeting of the Sanitary Institute recently held at Exeter, that of ventilating sewers so as to permit sewage-gas to escape into the atmosphere as soon as it is generated, and before it becomes dangerous to the public health. As a result, the town has during the last twelve months enjoyed complete immunity from zymotic diseases.—*Louisvills Medical News*.

TO BLEACH BONES FOR OSTEOLOGICAL STUDY.—Bones may be bleached in several ways, though, in the main, the methods do not differ very much from each other. In the first place it is necessary to get rid of all extraneous matter, such as attachments of ligaments, muscles, etc. Next they may be laid for several months in cold water, after which they may be boiled with weak lye. Instead of macerating them in cold water, they may be treated with lye at once, but it is not so easy to get rid of the fatty matter in this manner. Some others do not use potash at all; but, after having boiled the bones in water, they dry them, and then place them in naphtha for several weeks. After the fat has been extracted, they are generally white enough

for all ordinary purposes. Still, they may be rendered whiter by immersing them for about twelve hours in a moderately dilute solution of chloride of lime (1 part of chloride of lime mixed with fifty parts of water, and strained). Finally the bones must be washed with water until the latter has completely exhausted every trace of chemicals or solvents employed on them. All bones do not stand treatment with potash equally well; the more slender, frail, and flexible a bone, the less potash it will bear. In fact, tender bones should be bleached without this agent.—*New Remedies*.

PRESCRIPTION REPETITION.—President Kennedy, of the Pennsylvania Pharmaceutical Association (*Druggist*, November, 1881), cites this instance of the dangers attending renewal of prescriptions: "A few years ago, a prescription was dispensed containing Lugol's solution and laudanum, for swelling of the knee joint, with particular instruction, how to use it. It proved to be a capital remedy to reduce swellings, for in a short time the patient recovered. Sometime afterward he was stung by a bee over the eye, which resulted in an extraordinary and persistent swelling. Remembering that he had used on a former occasion a good remedy to reduce swelling of the knee, he sent to the apothecary and had the prescription renewed, used it freely upon the eye, and now suffers from an incurable opacity of the cornea."—*Chicago Medical Review*.

PIROGOFF.—Prof. Nikolaus Pirogoff is dead. He was Professor of Surgery to the Medico-Chirurgical Academy at St. Petersburg, also Consulting Surgeon to various hospitals in that city. His name is best known to us through his method of amputating the foot.

"The profession of medicine has always offered, and probably will always offer, peculiar attractions to those who with weak principles and still weaker conscience desire to make profit by trading upon the credulity of their patients."—*J. G. Hutchinson, Detroit Lancet*.

ACTION OF JABORANDI ON THE HAIR.—Dr. D. W. Prentiss (*Philadelphia Medical Times*) reports a case of pyelo-nephritis treated by pilocarpin, in which the hair changed in color from light blonde to jet black during the treatment. The patient was, however, neurotic.

Salzer has been counting the fibres of the optic nerve. He counts four hundred and thirty-eight thousand. The number of cones in the retina he found to be three millions five hundred thousand.

A HALF HOUR WITH OUR ADVERTISERS.

The Cincinnati Sanitarium furnishes, as we know from personal observation, a pleasant home for the higher classes of insane, who are only made worse by the prison-like methods and manners incident to large public asylums.

John Wyett and Brother are well known as the manufacturers of *compressed pills*, as well as of a line of elegant elixirs. Their "Beef, Wine, and Iron" has been largely prescribed. Lately they have commenced the manufacture of compressed tablets for use with the hypodermic syringe. These tablets contain accurate amounts of the active principle to be used: as, morphia, atropia, strychnia, etc., either alone or in combination. With these tablets the physician makes a fresh solution at the bedside, and has the satisfaction of knowing precisely how much he is administering. We use them constantly, and can recommend them.

Maltine, in common with all the other meal preparations, has come into very general use within the last few years, as a tonic and nutritive in nearly all debilitated states of the constitution. One of the latest combinations is that with crude petroleum, being especially indicated in wasting diseases in which the lungs are involved.

Stauffer's Gynecological Instruments we have used, as occasion required, with much satisfaction. The privilege of exchange which is allowed, enables one to fit a troublesome case without needless expense.

Horseford's Acid Phosphates are especially recommended in cases of nervous prostration, sleeplessness, and dyspepsia. We are in receipt of a number of letters from Ohio physicians attesting the value of this remedy in these conditions. One of these, from Dr. A. B. Hovey, of Tiffin, gives the experience of the doctor himself in its use, for sleeplessness and dyspepsia. We have used it personally and in practice for a number of years, and our experience confirms the statements of our correspondents.

PUBLISHERS' NOTICE.

Attention is respectfully called to the bills sent out in the last number of the JOURNAL. The amounts asked for in each case are small, but the aggregate is large, and, as we are obliged to settle up the business of the former publishing firm, we greatly need the money. *Please remit at once*, before the matter again passes from your mind. It is not our purpose to force payments until compelled by neglect, and we believe it is only necessary to impress the importance of this matter upon our subscribers.

It occasionally happens that our mailing clerk by mistake sends bills to persons not in arrears: such mistakes are unavoidable among so many accounts, but they are far more annoying to us than to the recipients.

Very Respectfully,

26 North High St.

HANN & ADAIR.

THE OHIO MEDICAL JOURNAL

Vol. 1.

MARCH, 1881.

No. 9.

COMMUNICATIONS.

*CLINICAL LECTURE.**

(1. Occlusion of the Pupils After Iritis, Iridectomy, Both Eyes. 2. Traumatic Cataract, Iridectomy.
3. Convergent Strabismus, Double Tenotomy. 4. Convergent Strabismus).

BY HENRY G. CORNWELL, M. D., COLUMBUS, OHIO.

Clinical Lecturer on Ophthalmology and Otology, Starling Medical College.

[Reported and subsequently revised for this Journal.]

I. OCCLUSION OF THE PUPILS AFTER IRITIS.

GENTLEMEN :—The first case I have to show you to-day is this colored man, aged 60 years, the subject of occlusion of the pupil of each eye, due to syphilitic iritis. By "occlusion" of the pupil I mean the adhesion of the pupillary margin of the iris to the capsule of the crystalline lens, together with deposit of inflammatory products in the area of the pupil. This condition is a dangerous sequel of iritis, since it is liable to excite other destructive diseases of the globe of the eye.

There are several forms of inflammation of the iris described by ophthalmologists, viz: (1) Idiopathic, (2) Traumatic. (3) Parenchymatous, (4) Rheumatic, (5) Gonorrheal, (6) Syphilitic, (7) Spongy and (8) Serous. The first five are better classed under one common head—Simple Iritis—as pathologically they do not differ one from the other, the cause being incorrectly taken into consideration in classifying the disease. The question of gon-

*Delivered before the class of Starling Medical College, January 27, 1882.

orrhœa exciting this inflammation, must yet be doubtfully answered. I call your attention to a more simple classification, viz :

1st. Simple Iritis; 2d. Syphilitic Iritis; 3d. Spongy Iritis, 4th. Serous Iritis.

Spongy iritis is a very rare form of this inflammation, and I will not complicate the subject in your minds by introducing a description of it in this lecture.* Serous iritis does not bring about such a condition as is illustrated in this case and I also exclude it, and ask attention to a consideration of simple iritis and iritis exhibiting peculiarities due to syphilis.

1. *Simple Iritis*.—Its pathological character does not differ from inflammation as exhibited in similar tissues in other parts of the body. By observing the following points the diagnosis is easily made: (a) The Iris: The membrane is discolored, the discoloration being greater or less according to the activity of the inflammation. The iris is dull and hazy, and differs in appearance from its normal fellow in the other eye. The discoloration is due to exudation of lymph into its structure and hyperemia of its blood vessels. (b) The Pupil: The pupil is contracted and in most instances irregular or notched in its outline. This irregular appearance is due to the adhesions which bind the membrane to the lens on which it rests. Lymph may be exuded into the pupillary space, as you see in this case. In other cases the pupil remains either wholly immovable or dilates very slowly when the eye is subjected to tests. In this case, as a means of examining the activity of the movements of the iris, I first shade the eye from the light with my hand and suddenly expose it to the light and find that there is no dilatation and contraction of the pupil. No effect is observed after the introduction of a solution of sulphate of atropia (grs. iv. ad aq. f3j). This I used some hours ago. In some cases the pupil dilates irregularly after the use of this agent, exhibiting the fact that adhesions connect only a part of this membrane with the lens behind it. (c) Pain: Circumorbital pain is generally complained of. At times it is very severe, and extends around the orbit to the point of the nose and over the side of the head corresponding to the affected eye. It is apt to be worse at night. In other cases it is wholly absent. (d). Circumcorneal injection: The injection of the circumcorneal vessels (anterior ciliary arteries), is exhibited in a zone of congestion of a pinkish hue surrounding the periphery of the cornea. This congestion does not fade out on pressure made by rubbing the lids with the thumb as it is made to do when the vascular injection is confined to the ocular conjunctiva.

Syphilitic Iritis: Syphilis excites iritis in about 50 per cent. of the cases coming under observation. When the disease attacks both eyes it is apt to depend on this cause. It makes its appearance in the second stage of the disease and presents peculiarities in its form worthy of mention. Together

*Arch of Ophthal. Vols. VI and VII. American Journ. of the Med. Sciences, January '80.

with the same conditions which we observe in simple iritis, we also notice yellowish red condylomatous nodules or gummy tubercles (Virchow) which are found situated in most instances either near the pupillary border or the periphery of the iris, protruding from the structure of this membrane into the anterior chamber. They either become absorbed (sometimes very quickly) or they undergo a liquefactive process, the puss sinking into the bottom of the anterior chamber, resulting in a condition known as hypopyon. Iritis may exist dependent on syphilis and no gummata be present, but the presence of these nodules is an evidence of syphilis almost without exception.

Acute Glaucoma may be mistaken for acute iritis if you do not understand the points of difference between them clearly. I will compare some of the conditions on which we would found a diagnosis in either case:

ACUTE IRITIS.

1. Iris changed in color. Dull and hazy in appearance.
2. Pupil contracted, irregular. Dilated and contracts very slowly or irregularly or not at all. Exudation oftentimes into pupillary space.
3. Aqueous humor muddy.
4. In some cases when the pupillary margin of the iris is adherent to the lens, the aqueous humor collects in the posterior chamber, so that the periphery of the iris is bulged forward and the membrane has an umbilicated appearance.
5. Circumcorneal injection.
6. Pressure on the eyeball with the fingers exhibits no increase of intra-ocular tension.
7. Vision not greatly reduced. Impairment due to cloudiness of aqueous humor and exudation into pupillary space. Takes place gradually.
8. Visual field not contracted.
9. May occur at any age.
10. Some circumorbital pain; not always present; usually worse at night.

ACUTE GLAUCOMA.

1. Iris not changed in color.
2. Pupils dilated and sluggish, or immovable. No exudation.
3. Aqueous humor muddy.
4. Lens and iris bulged forward. Anterior chamber shallow.
5. Circumcorneal injection. Anterior ciliary veins very tortuous.
6. Same test exhibits increased tension in all degrees to stony hardness.
7. Vision greatly reduced. May be perception of light or sight entirely destroyed. Due to paralysis of retina from increased intraocular pressure. Takes place oftentimes very suddenly.
8. Visual field contracted.
9. Affects persons beyond middle years of life.
10. Violent circumorbital pain extending to back of head or affected side and point of nose. Perhaps producing marked nervous depression, vomiting, etc. Develops often at night.

11. No impairment of sensibility of cornea.

12. No premonitory stage.

11. Impairment of sensibility on cornea. Sometimes doubtful.

12. A premonitory stage precedes the attack in most instances. May do so a number of times after intervals of days, weeks or months. Consists in the presence of the greater number of all the above conditions (increased intraocular tension, dilation of pupil etc.), together with "ring of rainbow colors" around candle light, etc.

I have thus compared these extra-ocular manifestations of each disease, and by observing them no error in diagnosis will be made. The ophthalmoscope in the case of glaucoma, if the refractive media be sufficiently clear, would reveal intraocular conditions peculiar to this disease which I will not take time to describe. It would lead me farther than I wish to go in this discussion, and you are supposed not to be familiar with the use of the instrument thus far in your work.

The *desiderata* in the treatment of inflammation of the iris are (1) to bring about dilatation of the pupil, so that adhesions will not unite this membrane with the lens, and (2) to subdue the inflammation. For such purposes the use of a solution of sulphate of atropia (gr. iv ad aquæ f3i.) is indicated. On first seeing a patient the subject of iritis we should introduce a drop of this solution into the eye and seat him in an adjoining dark room and after half an hour observe the effect it produces. It may be that after the use of this agent the pupil dilates so that its continued use, one drop every four hours, together with the use of London smoked coquille spectacles is all that is required. It may be that the pain is severe, and that the atropia solution has only a partial effect in relieving the patient of it and producing the desired full mydriasis. Then local bloodletting is demanded, six or eight leeches being applied to the temple about an inch from the outer angle of the eye, or Huerteloup's artificial leech, which you have already seen, is used, and blood by one of these means removed. The atropia will in many cases after this depletion immediately bring about the desired result. Turkish baths have the same good effect. If the pupil responds yet imperfectly, a good plan to adopt it to put the patient under the influence of mercury, observing its effects on the mouth. If after repeated leeching and the continued use of the atropia solution and mercury, excluding the eye from the light by means of dark glasses, this complete occlusion of the pupil is the result, the patient has either been seen too late to prevent adhesions, or the inflammation is one of unusual severity. The mercury is to be used in all syphilitic cases. I often employ it in severe forms of the disease

where no such constitutional cause exists. Without treatment, complete occlusion of the pupil may result, as it has in the case of this man. You see that the inflammation has entirely disappeared, but on close examination I find the pupils contracted, irregular and blocked up with the products of inflammation, and the sight is thereby impaired. I intend to do an iridectomy on each eye: that is, take out a segment of the iris and in this way enlarge the pupils so that the patient may have a clear opening to see through. I do it also for one other reason, viz: to relieve the patient of the danger which is liable to result from occlusion of the pupil. The dangerous condition referred to is glaucoma. The aqueous humor can no longer make its exit from the posterior to the anterior through the pupil, and thence from the eye through Schlemm's canal at the angle of the anterior chamber as it formerly did, the volume of the intraocular fluids is thereby increased, and the glaucomatous process is established. Of the grave character of this condition I have spoken at a previous lecture.

(Upward iridectomy was done on both eyes, patient under ether.)

2. TRAUMATIC CATARACT.

This young man, aged 17, while at work four days ago was struck in the right eye with a chip from a chisel. The body struck the eyeball cutting the cornea over the pupil, at the same time injuring the lens. This injury to the latter body was a rupture of its capsule which gave entrance to the aqueous humor. The cortical substance became, as a result of this, opaque and swollen. The sight is much impaired, the iris bulged forward and irritated by the swollen mass. Such a condition is liable to set up glaucoma. In order to relieve the eye of this irritation and danger, I will do an iridectomy and then remove as much of the lens substance as will come away without endangering the eye by too much of an effort in this direction.

(Iridectomy upward and inward performed without ether.)

3. STRABISMUS CONVERGENS.

The third case I offer is a case of convergent strabismus. This girl, aged 16, has squinted since infancy. The mother says the deformity followed spasms. You will remember I told you at my last clinic that hypermetropia was the cause of convergent squint in, according to Donders, 75 per cent., Wecker, 85 per cent., and my own analysis of 221 cases, 80 per cent.* Further than this, that where squint is reported by parents to be due to spasms, falls, etc., hypermetropia is at the bottom of it. A rule to be followed strictly in these cases is to examine the patient carefully for a refractive error, and if there be hypermetropia to correct it, after the eyes are made straight by an operation, by proper lenses. If this is not done the

*A Clinical Study of 221 Cases of Strabismus, treated at the Brooklyn Eye and Ear Hospital during the years 1873-7, by Henry G. Cornwell, M. D., late resident surgeon Brooklyn Eye and Ear Hospital, etc.

squint will in many cases become re-established and the operation itself will suffer discredit at our hands. I find no hypermetropia here and the tentomy is all that is required.

(Tentomy of both internal recti muscles under ether.)

4. STRABISMUS CONVERGENS.

The next is a case illustrating what I have been speaking of, a young man with convergent squint having hypertropia 1-12, a moderately high degree. He refuses to wear spectacles after the operation and I therefore refuse to do the operation as I am confident with that degree of error no *permanent* good effect will be obtained.

CASES OF SMALLPOX.

BY WM. MORROW BEACH, M. D., LONDON, OHIO.

On Sunday, Dec. 25, 1881, as I was on my way to a Christmas dinner, I was called in to see Charles Barnhart, a laborer, aged 22 years. He was one of a family of thirteen, all living in a double log cabin on the National road, three miles north of this city. The family consisted of George, aged 59; Ellen, 55; Frank, 31; Silas, 28; Wesley, 26; Elliot, 24; Charles, 22; Ida, 18; and Bud, 15. Silas is a married man, and lives in one end of the cabin. His wife, Alice, is aged 24; Miss Rakestraw, her sister, 28; Wilbert, aged 3 years; and Walter, 7 months.

In the case of Charles, the patient, I found the tongue heavily coated and white. Had had high fever on the two preceding nights, which remitted through the day. There had been one case of typho-malarial fever in the other end of the house—Alice, which had just fairly recovered. I did not think this case was likely to turn out a typho-malarial, on account of the conspicuous absence of pain in the head, back, or limbs. It looked like a mild type of remittent; but I was the family physician, and I told them frankly I could not say just what it might turn out to be. I prescribed cinchonidia. On Monday they sent for me—patient no better. I again prescribed cinchonidia. I could not see the mercury in my thermometer, owing to the fogginess of the morning and the darkness of the room; but when I examined it later, I thought there must be something wrong with it, as it stood at 113°! On Tuesday morning, the 27th, the patient said he felt almost well. He had perspired copiously during the latter part of the night. A close examination revealed some small red points, or specks, scattered over the forehead; and I was not sure that I did not see some on the forearm. The thermometer stood at 102°. The family said the boy had not been from home, anywhere, to contract any disease; nor had any person been around the house outside the family. On Wednesday morning, the

28th, *I was there early*, and came to the conclusion that I had a case of smallpox! Then the family recollected that on Sunday morning, the 11th day of December, a tramp had unceremoniously walked into the house and seated himself at the stove, to warm. He was a suspicious looking customer; and after he had warmed awhile they told him to move on.

Smallpox was not a new disease to me. I had treated it in several different pest-houses, while in the army; but the question immediately before the court was as to what disposition to make of the family. Should I scatter them? If so, into whose houses? Into whose families? Who wanted them? Who would receive them? I forthwith notified the township trustees; and started two of the boys for vaccine virus.

I recollect once I was sent back from the moving army to a town called Waterford, in Mississippi, twelve miles below Holly Springs, to care for a lot of soldiers that had been dropped out. I found about thirty of them corralled in an old church, and there was no other available shelter. Some of the cases were pneumonia, pleurisy, etc., and two of them were smallpox, in the pustular stage. The weather was exceedingly inclement for that latitude, and I felt sure that death would result to several of the cases should they be thrust out-door. I let them all remain where they were. I moved the smallpox cases into a corner by themselves, knocked a part of the glass out of the windows, and commenced vaccinating. All recovered; and there was no contagion. On this latter point I am *sure*, for there was a threatened *court martial* hanging over my head until the lapse of time proved my justification and my humanity in the case. Five or six of the vaccinated took promptly, and ran a natural course. And in the case of the Barnhart family I felt *sure* I could succeed in the same way, and avoid the possible multiplication of points of contagion to threaten the community.

Of the thirteen persons in the house, *four* had been previously successfully vaccinated—George, Ellen, Alice, and Miss Ada Rakestraw, but this was during their childhood. Through Dr. Isaac Kay, of Springfield, O., I received two dozen points of bovine vaccine virus, which was supposed to be perfectly reliable. On Thursday morning, Dec. 29th, immediately upon receipt of the virus, I vaccinated the family all around. On Sunday, Jan. 1st, I repeated the operation. On Tuesday, Jan. 3d, I revaccinated them with virus procured from Dr. Toland Jones, of London, which was represented to be reliable and fresh from the farm of Dr. Heyl, of Columbus. On Wednesday, Jan. 4th, the vaccination began to show on Elliott and Ellen, from the second vaccination of Jan. 1st. On Thursday, Jan. 5th, I revaccinated again with another installment of ivory points from the farm of Dr. Heyl, through Dr. Toland Jones. On Saturday, the 7th, I repeated the operation. A magnifying glass showed very plainly a vaccine pustule coming on Silas and Walter, the baby—all from the second vaccination of

Jan. 1st from the virus procured of Dr. Kay. On Monday, Jan. 9th, I revaccinated with some points very kindly loaned me by Dr. A. J. Strain, of London. I had already vaccinated them all around six different times, using one point to one subject, and occasionally two points. I had used in the family over six dozen points, inserted in about one hundred and twenty scarifications. On Friday, Jan. 6th, Elliott and Ellen took to their beds, where they remained for three days, with very high temperature, which so far subsided by Monday, the 9th, that they left their beds and sat up most of the day. About one or two hundred pimples appeared on Elliot, that seemed to abort in the vesicular stage. A few of them went on into the pustular stage. On Tuesday, Jan. 10th, George, Frank, Wesley, Ida, and Bud all took to their beds with all the characteristic symptoms of variolous fever—intense head-ache, back-ache, rigors, thirst, high temperature, nausea, and a tongue so heavily loaded with a whitish coating as to be almost characteristic of variolous affections.

The sub-lingual temperature in Charley, the first patient, ran as follows : Tuesday, Dec. 27th, 113° (?) ; Thursday, Dec. 29th, 102° ; Friday, Dec. 30th, $102\frac{1}{2}$; Saturday, Dec. 31st, $102\frac{1}{2}$; Sunday, Jan. 1st, 102 ; Monday, Jan. 2d, 104 ; Tuesday, Jan. 3d, 103 ; Wednesday, Jan. 4th, 102 .

The axillary temperature in the five succeeding cases was as follows, commencing with the second day of fever :

	George	Frank	Wesley	Ida	Bud
Wednesday, Jan. 11th....	104°	103°	103°	103°	104°
Thursday, Jan. 12th.....	106	104	103	103	104
Friday, Jan. 13th.....	100	104	103	104	102
Saturday, Jan. 14th.....		103	100	100	100
Sunday, Jan. 15th.....		$100\frac{1}{2}$	$100\frac{1}{2}$	99	$98\frac{1}{2}$
Monday, Jan. 16th.....		$100\frac{1}{4}$	100	100	99
Tuesday, Jan. 17th.....		101	100	$101\frac{1}{2}$	100
Wednesday, Jan. 18th...		101	101	102	102
Thursday, Jan. 19th.....		101	101	102	102
Friday, Jan. 20th.....		103	103	103	101
Saturday, Jan. 21st.....		107	103	101	100
Sunday, Jan. 22d.....		104	103	100	99
Monday, Jan. 23d.....		105	101	99	99
Tuesday, Jan. 24th.....		105	101	99	99
Wednesday, Jan. 25th...			99	99	99
Thursday, Jan. 26th.....			99	99	99
Friday, Jan. 27th.....			100	100	99
Saturday, Jan. 28th.....			100	99	99
Sunday, Jan. 29th.....			100	99	99
Monday, Jan. 30th.....			100	99	99
Tuesday, Jan. 31st.....			100	99	$98\frac{1}{2}$

In the above record George, whose temperature was 106 on the second day of his fever, and 106 on the third day of his fever, had dropped

suddenly down to 100 on the fourth day. He had been vaccinated in childhood, forty-five years before; and yet on the fifth day he left his bed for good, without fever, and without a single pimple!

In the case of Wesley, although the eruption was conspicuously confluent, no especially peculiar symptoms supervened until on Friday, the seventh day of the eruption, when his secondary fever rose to 103, he was attacked by a severe laryngeal trouble, with spasmodic closing of the rima glottidis for thirty-four hours, from which I momentarily expected death from asphyxia. The confluence was so marked upon his toes and feet that the skin on the plantar aspect of the feet hung in bladders. He described the sensation as being like a burn from treading on hot iron; and his nervous system seemed to suffer more from the burning in the bottoms of his feet than from all the balance of the eruption.

In Ida's case the eruption was in the vesicular stage on her arms before there was any appearance of pimples on the face; but they developed on the face a day or two later, in the distinct form; while they were decidedly confluent on the elbows and forearms.

In Bud's case there was almost uninterrupted delirium for the four first days, until the eruption reached the vesicular stage; and the confluence, in his case, upon the cheeks, neck, arms, nates, and thighs, was in clusters—with the distinct form intervening—constituting the corymbose variety of some authors.

On Frank the pustules were more conspicuously confluent than in any of the others. His face and neck were completely covered, with no intervening spaces. The pustules were small and poorly developed—making the surface look very much like dried shark-skin. Those upon the lower extremities, where they were distinct, were each surrounded by an aureola, of a livid hue, about one line in width, constituting a form of the so-called “red smallpox.” There was not a full development in any of his pustules, confluent or distinct; having a flat appearance and rising but about half as much above the surface as they should have done to look healthy. This lack of development should be looked for in the confluent pustules; but they are usually pretty fully developed in the distinct, in cases that promise favorably. On the 5th day of his eruption he was attacked severely with smallpox salivation. His father, who was his nurse that night, thought he spit up nearly one gallon of a watery fluid during the latter half of the night. The patient described the saliva as being “as salty as any brine.”

On Saturday, the 8th day of his eruption, when his temperature suddenly rose to 107°, he had a severe attack of laryngeal and bronchial trouble, with hoarseness, partial aphonia and spasmodic closure of the glottis. His attack of this trouble came on about twelve hours later than in the case of Wesley. Both these patients seemed to be absolutely unable to wake up;

whereas before the attacks they seemed absolutely unable to sleep; and the very second they arrived at unconsciousness *the breath would leave them!* Upon being aroused they speedily recovered the ability for respiration, although it was somewhat stridulous and laborious all the time. They both attributed their inability to get their breath to a foul stench that seemed to come from the post-nasal region, but I presume they were mistaken as to the cause; and that it was owing to closure of the rima-glottidis.

But on this, the eighth, day of Frank's eruption, another symptom supervened which alarmed me more than his laryngeal trouble: *his pustules had sunken!* This is probably owing to the absorption of the fluid contents of the pustules; and if it occurs only locally—as upon the face or arms—it may not prove serious in its results; but when it becomes general, in the confluent variety, I think it may generally be looked upon as an almost necessarily fatal symptom. On Monday, the tenth day of his eruption, he had an attack of diarrhea, upon which his tongue, which had become very dry and black, became somewhat moist; the laryngeal and bronchial trouble lessened materially, and there was considerable perspiration over the whole body. I then felt some encouragement, as the temperature subsided to 104° , and his mind, which had been very much clouded since the secondary fever commenced, cleared up almost completely. But the temperature soon ran up again to 105° ; the tongue became black and dry; the sputa limited and very tenacious, and returning delirium soon amounted to mania, which continued until an hour before his death, almost uninterruptedly. Eighteen hours before death his mind seemed clear for about twenty minutes, when he bade the family good-bye, made a verbal disposition of his property, and immediately relapsed into delirium. He died on the thirteenth day of his eruption.

There was nothing peculiar in the case of Wilbert and Walter, the two little children. I did not keep their temperature on account of their restiveness, and their dislike of being annoyed. Walter, the babe, seven months old, had been taken from his mother's breast when she had typho-malarial fever, in October. I did not lessen the amount of milk for his bottle, nor interfere with his diet. He had laryngeal trouble, which supervened on the fourth day of his eruption. His crying and coughing sounded like a child with pseudo-membranous croup. On the ninth day of the eruption he brightened up; sat up straight in his mother's lap; played with a scrap of paper, and the drooling from the mouth saturated his bib. The disease, in both children, was ushered in with spasms.

Of the cases of varioloid, Elliott, who took vaccination from the application of January 1st, and his mother, which was a re-vaccination, both went to bed on the eighth day. They were very sick for three days. Their temperature ran up to about 105° , but I neglected to keep a note of it.

They had the sore throat, headache, backache, and the symptoms of varicellous fever. On the fourth day the mother left her bed; and on the fifth day of her illness her forehead, head, and back of her neck were strewn with pimples, which seemed to abort before fairly reaching the vesicular stage. Elliott had probably 200 pimples, which ran on into the vesicular and pustular stages; and his case ran on in a mild form about the course and length of time of a true variola. The history of the other varioloid cases did not differ materially from these two.

As to the period of *incubation*, the eruption appeared on Charley, the first case, on the *seventeenth* day from exposure; and the four brothers and one sister, who contracted the disease from him, broke out on the *seventeenth* day from the first appearance of any pimples on him. The two children who were living in the other end of the double cabin, broke out five or six days later—when the more concentrated poison found its way through the log partition.

Ida and Walter were both taking vaccination when the fever came upon them. There is no evidence whatever, that the disease was modified by it. The eruption on Ida was no less than on her brother Bud; nor was the temperature less; and the desiccation, at this writing, now the eighteenth day since the eruption, seems to be more forward in the non-vaccinated case. And the same is true in the cases of the two little children. But I refer to these hackneyed questions because each epidemic seems to be marked by its own distinct peculiarities; and it is only by a comparison of notes that any special epidemic can have its special characteristics settled.

The period of *desiccation* is also an uncertain thing. In the case of Charley—now thirty-one days since the eruption—the unsightly scabs upon his nose make it look like a demoralized peachblow potato, while the scabs on his legs have scarcely begun to fall off at all, as yet, although he is up and around and ready for full rations; while his brother, Bud, now only in his eighteenth day since the eruption, is almost clean of scabs, and little Wilbert, aged three years, now in his fourteenth day of his eruption, has not one single scab remaining on his person. Many of them on his face dried up in the vesicular stage, and gave to his face the appearance of being covered with isolated fish scales. But no vaccination had taken in any of these three cases.

A PROLIFIC WOMAN—SEVEN CHILDREN IN TWENTY-SIX MONTHS, FIVE IN LESS THAN ONE YEAR—HEREDITY.

BY J. J. ROCKWELL, M. D., WINESBURG, OHIO.

Mrs. G.—, aged twenty-eight, married three years; tall, and rather slender; herself a twin, as also her mother; gave birth to twins January,

1879. They lived a few weeks and died of internal convulsions. March 27th, 1880, she again gave birth to twins. One lived three weeks and the other nine; both dying of convulsions.

March 12th, 1881, she gave birth to *triplets*. I attended her in this confinement. Labor began about noon, I was called about 2 P. M. I found that her health for a month or two before confinement had been rather delicate; she had lost flesh and strength, but had not been confined to her bed. The first child was born at 6 P. M.—vertex presentation. The second was born an hour and a half later: also vertex presentation. The third was born after a similar interval; but by a breech presentation. Labor progressed without requiring any special interference. The uterine contractions were rather vigorous. The placenta, which was single, and rather small, was expelled in about thirty minutes after the birth of the last child. The length of each cord, respectively, was twenty-four, twenty and twelve inches. There was but one set of membranes, and very little liquor amnii.

The first child, a boy, weighed seven pounds; the second, a girl, six and one-fourth pounds; and the third, a boy, five and one-half pounds. The third child lived twenty days, and died of convulsions. The other two lived about six months and died of cholera infantum. They were bottle-fed.

The mother made a good recovery, but after the death of her child she exposed herself, and died in less than twenty-four hours after she took to her bed.

ON CELLS—A RETROSPECT.

PART II.

BY W. H. BIRCHMORE, M. D., COLUMBUS, OHIO.

In the first part of this contribution (see August JOURNAL 1881), a sketch was given of the vicissitudes of this theory among the German writers, and a hint at the theory of Beale. The theory of this author demands attention, whatever other merits it may possess, as being the working hypothesis of a most renowned histologist. Not only have the writings of Mr. Beale found a place in the libraries, no matter how "modest," of all students devoted to the elucidating of the life processes they see around them, but, thanks to the labors of Dr. Tyson, of Philadelphia, and his helpers, they have been put within the reach of the medical student, and by the publishing of the lectures of one Joseph Cook, the newspaper press has placed a version of them in the hands of the public. Mr. Beale, during his lectures at King's College, promulgated these ideas from time to time, and since then in his books has elaborated them into a complete hypothesis for life histories and their phenomena. It is the workings of this hypothesis that forms our present subject.

It is well worth the while of every student to "read, mark, learn and inwardly digest," the statements which are made in these remarkable books, and verify or disprove the accuracy of the observations made by their author. But in following in the steps of this investigator, certain precautions must be taken; his methods of investigation must be followed, and the freshest possible tissues must be used. This precaution is the more necessary as certain observers using other methods of investigation have either failed to verify or have reached conclusions different from those of the great vitalist, and to these objectors he has always answered, "your methods of investigation are defective," and has plainly shown that he considers his methods as essential to the establishment of his conclusions. He certainly has a right to demand that he shall not be accused of errors of interpretation, except by men who have employed the same methods for investigation as he has himself.

Making use of the statements of his writings, an endeavor will be made to construct as far as may be a picture of the creed of that theory which may be called vitalist, and show how far it is a satisfactory working hypothesis.

We will begin then with that portion of his work which forms the title of this paper, and make a retrospect of his ideas on the structure of the anatomical elements, *i. e.* the cells. In the first place, this author declares distinctly that the difference between the free nuclei and adult cells is one not of kind but of degree; not that a nucleus is the more or the less important part of a cell, but that it is a cell *in posse*; that that which makes the nucleus is not the cell, but that the nucleus is by a process of growth converted into a cell, into an anatomical element. For these embryonic elements the name bioplast is proposed, and he considers the object and end of all biological research to be the investigations of the "life process" of these bioplasts, or, as he phrases it, "our investigation is therefore narrowed to the study of the changes taking place in the transparent living matter itself, and the changes occurring on its surface."

This bioplasm, this living matter to which we are invited to turn our attention, is the "colorless and structureless matter characteristic of and peculiar to all life on this earth and in air and in water, is capable of moving in every part and in every direction. The movements are not such as are produced by vibrations communicated to the fluid or semi-fluid structure by matter in vibration in its vicinity, but the impulse proceeds from within the living matter itself." This matter our author makes a distinct kind of matter, differing from "matters crystalline or colloid, gaseous, fluid, or solid, structureless or having structure." The idea of the essential life of this substance runs like an Ariadne's thread, a guide in this, worse than Cretan, labyrinth of the phenomena of life; at least Mr. Beale affirms it does.

Mr. Beale nowhere regards life as the essential attribute of this structureless substance, but it is declared that it is the basis from which in its metabo-

lism all the phenomena of life find their origin. To him this bioplasm is the substance from which all the tissues of the body are formed; cells are considered only as small masses of this substance. The origin of the different kinds of cells in the various bodies, animal and vegetable, from this substance, naturally requires explanation, and the explanation of this development is the chief purpose of Mr. Beale's writings.

Beale may be said to consider that cells arise in a nutrient fluid, from free nuclei, each one of which was formed by the budding of the bioplasm in another cell. For him a cell consists of bioplasm, and the formed material which has grown from it and is made of it. That is to say, the bioplasm which lies on the side, in the center or at the end, of the cell, is that from which the cell grows. The phrases "nucleus" and "nucleolus," as commonly understood, are therefore repudiated as misnomers, and "cell wall" and "cell contents" are in most cases made to share the same fate. This bioplasm mass is not surrounded on all sides by the formed material, as a peach stone is by the pulp of the fruit; but is in communication with the basement membrane, or bioplasm masses in the anatomical elements below. If a number of these anatomical elements be placed in what is known as the Beale staining fluid (a solution of ammoniated carmine in glycerine, alcohol and water), the "bioplasm" will be stained red while the "formed material" will remain colorless. Mr. Beale says the material that has taken the carmine fluid is "living matter," while the rest is "dead." Of course he does not intend to say that that which is "dead" has passed under the domain of the chemical process which reduces every body to its ultimate elements again, any more than has a ripened grain of wheat, but simply that it has for the time being ceased to perform the vital function, it has ceased to grow

If now we examine the epithelium from a mucous surface, after treating it as Mr. Beale demands, we find that the anatomical elements present very different appearances at different levels. Those from the deeper portions are almost globular, while those of the uppermost present an appearance such as was previously described. The "nucleus" *is rendered more evident in the cells upon the surface, not by any greater comparative size of its own, but because of the greater quantity of the formed material around it, an arrangement which renders it a more prominent object than even in the layer below although it is not nearly so large. In the still deeper layers the formed material continually lessens, until it is lost and the bioplasm stands alone; in other words, becomes a "free nucleus."

Of course, during a certain period before the coating of the formed material has shut them up as individual tissue elements, these "nuclei" are

*It is more convenient to use this word, as it has acquired a conventional sense, than the phrase that defines it, but unless otherwise stated it means "the central bioplasm."

simply small portions of the total bioplasm of the body, but after their process of growth gives place to that of tissue formation, and each little bioplast becomes an anatomical element, a "cell," the growth of this bioplast as such ceases, and the formed material around increases until the power to form, or the tendency, is lost, and either the element is cast off, as in the epidermis, or remains to perform some disputed function, as those covering the mucous surfaces, etc. In either case the element is adult, and its community with the rest of the body is mostly limited to continuity and contiguity of tissue. Mr. Beale makes many distinctions in regard to the life history of various cells in different parts of the body; some in accordance with other writers and some not. Still his writings are of more working value to the student than those of any other author at present at work.

Mr. Beale claims for what he calls bioplasm, not only the power of tissue formation as long as a proper supply of pabulum is given to it, but also an almost indefinite power of tissue consumption; not only can the bioplasm of the cell make itself a house of formed material, but it can use that house for food, or, to use another simile, the formed material may be like the store of fuel laid up for some sudden demand as when an inflammatory action is set up.

Mr. Beale's hypothesis further requires an examination in regard to the method of growth in each cell, the formation of new cells and the nutrition of groups of anatomical elements. If we are to understand this so important hypothesis, however, we must concede, for argument's sake, the equally important postulate that this bioplasm is endued with certain qualities for which neither its mechanical condition nor its chemical composition can successfully account. If we regard the egg as a simple cell undergoing changes in its nutrition in such a way and to such an extent that segmentation takes place and a series of granules are formed of any theoretical size, the result would be the formation of what could be very popularly described as free nuclei. If now we suppose these free nuclei to follow the ascertained order of things and obtain a cell wall and a cell contents, what are we to regard as the sources of the material? Obviously only two are possible, one the mass of bioplasm forming the nucleus, the other the fluid in which, by a figure of speech, it may be said to float. It is a conclusion perfectly obvious that after a cell wall has been formed a cell can no longer grow into another cell, any more than one potato can remain one potato and still grow another one from it. That is to say a cell can not retain its integral unity and at the same time proliferate. Some change must take place antecedent to proliferation if a cell wall has been acquired, or otherwise it is obvious that a cell proliferation either physiological or pathological must take place while the cells are embryonic; that is to say are simply in the condition of bioplasm masses before the formed material has effectually enclosed them. With this as a theorem,

let us apply our attention to the examination of the proposition, Do adult cells ever grow by binary sub-division? The opinion has been previously expressed that they do not except in cartilage, and even here the proliferation contents itself with a very abortive kind of growth, and that in the case of inflammation, which to begin with is a morbid process, a pathological not a physiological action, the first step is to reconvert the formed material of the anatomical element back into living matter before anything like proliferation takes place.

Still it must be admitted that no hypothesis yet advanced does satisfactorily account for the formation of new elements in an adult part so well as the natural outcome of Connheim's investigations. But then, what are we to consider an "adult cell?" Probably we can only say one which has for the time being ceased to grow, or rather to proliferate. This is an obvious necessity, for the most generally useful distinction that can be made between an hypertrophy and an hyperplasia is that in one case the cells are both increased in number and in size but are all of them of the pattern and form of healthy elements of the same kind and order in other parts of the tissue, while in a hyperplasia the tissues are still embryonic; or, as it has been elsewhere phrased, an hypertrophy is "a family of healthy-child cells, while an hyperplasia is a family of abortions. The one may grow to life and functional activity, become perhaps normally active men, perhaps giants, but the others, puny and imperfect, remain endued with a spirit of evil that renders them a curse to their surroundings and themselves."

In a cell which has acquired a cell wall, no matter how we choose to regard it, there must be the separation into nucleus, cell wall and cell contents, and therefore osmosis is possible without requiring any entrance of the osmotic substance into the bioplasm, if it be so considered of the cell. So long as functional equilibrium is maintained a tendency to osmosis will exist, and if this tendency continues for a sufficient period this result will be produced: the space* between the cell wall and the nucleus will be filled by a material of the same chemical and mechanical condition as that of the fluid surrounding it, and any change in the condition of either will establish osmotic currents. It makes then no difference; a certain equilibrium constitutes the physiological condition of nutrition; it is very unstable, but it may theoretically exist, and the process of nutrition thus becomes a process by which the equilibrium is maintained, and any disturbance of this equilibrium constitutes a tendency to the destructions of the functional life of the cell.

The question of how are the cells in their free condition or in a living tissue nourished, may well next receive our attention. In the case of some of the

*This is not to be considered as an assertion of the vesicular character of the anatomical elementary part, but as a theoretical proposition simply.

simple forms of living beings, as in the ameba and its like, the method of nutrition can be readily seen; it flows around the particle which it intends to make use of as food, and having used all it can flows off again. Now by a parallelism we may say that the cell being surrounded by the nutrient tissue takes in by a perfectly passive process, most probably that of osmosis, all that it needs for nourishment, from the fluids about. But as the osmotic process would continue until a perfect equilibrium was established, and then any change on either side of the membrane would produce a counter current, we may say that in the passive condition of all cells while still endowed with the power of self nutrition, there are two processes of a purely mechanical nature going on, osmosis the base of both, the one endosmosis, whereby nutrient material is brought in contact with the living matter, and exosmosis, whereby the unused and altered material is passed out. For, of course, in all instances the processes work together in such a way that if continued long enough and far enough the fluid on one side of the cell wall, or inside, would have precisely the same constitution and condition as that on the other side, the outside, and the process which produces this would be continued indefinitely until this result is obtained.

The question, by what process are certain materials taken out and certain left behind, remains for an explanation; *i. e.*, Are we to consider the selection of some of the constituents of the nutrient compound and the refusal of others as a vital, or as a chemico-mechanical process? Are we to regard the process as the result of a vitalism in the cell, or as an exemplification of the natural processes impressed on matter at large?

Mr. Beale makes a very emphatic attack upon certain men who have compared the cell to a chemist elaborating in his retorts and apparatus some more or less complicated chemical compound, but at the same time he gives no better argument to show that the analogy does not exist than that there is no trace of the machinery for such doings in the structureless bioplasm. Let us consider a moment what the real changes that go on in a cell are, so far as we can safely go, for in the amazingly contradictory opinions expressed by "authorities" to-day, nearly any opinion one may wish to put forward can find backing.

This tendency may in its turn have either of two points of origin. First, in the action of the cell, second, in the composition of the fluid. If a cell is excited by stimulation, changes unnecessary to the performances of its vital function may and often do so far get the start of the osmotic processes just mentioned, that the cell becomes filled by the products of its own disintegration, or the circulating fluid may become saturated by the products of disintegration and thus the proper supply of nutrient material being cut off the cell ceases its active life. This considers the process of nutrition alone, and takes no account of the process of its functional life, which is entirely a

different matter. In general terms, at least, we may say that the nutrition of a cell depends on the supply of the nutrient fluid, while its functional life depends more or less directly on its nervous supply; and as our inquiry concerns the nutrition of the cell only, and not its functional existence, we proceed:

In the first place the process of nutrition differs both in relation to the kind of substances used as food and in their mechanical condition. The action of certain gland-cells in the gastric mucous membrane, in converting NaCl into HCl (salt into hydrochloric acid) is a very good illustration. No one who knows anything can avoid surprise at the moment that the fact is presented to him that a gland-cell can and does perform a chemical action, which, if not one of the most delicate and striking, is one of the most important of the chemist's manipulation.

Again, the ferments* so called—Ptyalin, Pancreatin, etc.—produce actions of hydration and perhaps of dehydration, that are precisely equivalent in their results to chemical actions, no matter whether they are identical or not. It may be that they are vital, in so far as the origin of the ferment is concerned, but beyond that this action is to be explained on chemical and mechanical principles familiar to all.

If the observation recorded by certain observers is true, the part of nutrition of certain gland-cells comprised in furnishing their definite secretions, goes on at a rate which renders the pressure higher in the duct than in the blood vessel, and renders the temperature higher than that of the surrounding medium. The pressure of secretion is not only greater than the blood pressure, but it is irrespective of it. It may be considered as a nervous influence, the more so as one anatomist has by careful investigation been led to make the assertion that the gland-cells of the salivary glands are excrescences on the ends of nerves.

It is then an opinion which is well provided with "authorities," that one of the vital functions of cells is to make chemical compounds from fluids containing the elements of these compounds, either free or in connection with other substances (elements); if this is not chemical action what is? Also the production of these mysterious ferments is an action not identical with but in a measure quite parallel to, the previous one.

Mr. Beale gives an opinion to variance, as usual, with that of many others, as follows: "Neither does the tissue (nerve) whose action is most intimately associated with the mind, necessarily take any part in the forma-

* *Ferments* is a word which has a meaning purely conventional, and must not be supposed to have anything to do with "fermentation." A *ferment* is a force which without becoming weaker itself influences other bodies about it to a greater or less extent. The ferments, Ptyalin, etc., are bodies endowed with this property in theory, but a real ferment is like the philosopher's stone—a great desideratum. Hoppe-Seyler says that they are "quite unknown, purely hypothetical bodies, only known by their actions."

tion of the products of gland-cell action. Substances of very complex composition and wonderful properties are formed in plants which are destitute of nerve tissue. Upon the whole, it is very improbable that nerves exert any direct influence in the process of secretion, or in the production or building up of highly elaborate chemical compounds." On the other hand it has been affirmed that some glands, the ones experimented on, obeyed nervous stimulation, both as to amount and conditions of the secretion. So that if nervous influence is any proof of an action being vital and not chemical, one would suppose it existed here.

Not less peculiar is the fact that Mr. Beale's bioplasm theory requires for its belief a credence in one of two propositions; either a mechanism of a sort of automatic kind, by which each cell can do but one kind of action and form one kind of tissue, or else a selection by the tissue, or by the cells, of the proper kind of pabulum for their use and nutrition. Now, how Mr. Beale can claim that the first proposition is "vital" in its conception, or how he can reconcile the idea of a choice in his "bioplasts" with the idea of mind he advocates, we leave to heads older and wiser than ours, but we can not make any such reconciliation. In fact, Mr. Beale's theory labors under the disadvantage of requiring that a mass of matter which he says is alive, can perform two kinds of action, one of which implies a choice and one of which does not. He requires to make his system complete, that all secretion shall be selective; secondly, affirms that it is the product of bioplasm; and, thirdly, denies nervous influences.

A selective secretion, or storing in the cell of some product for future use, requires either a consciousness of what is needed to make the said product synthetically, or a knowledge of how to separate the atoms to make it analytically, or else it depends on the mechanical conditions of the various solids and fluids concerned in the business. Where the first one leads, we do not care to follow, and the second one goes in the very direction of that hypothesis whose results are described as a "limitless darkness."

Both the great vitalist, and those whom he opposes, declare for a physical basis of life, but they draw off in two lines, which separate at a very great rate. To the vitalist, the scheme must be a range of pure chance, or else a definite plan having been devised some where, each molecule of albumen or calcic phosphate is put in place by a watchful artisan, undiscovered and perhaps undiscoverable, for the doctrine demands a guide for each atom and an architect superhuman if not Divine; in one word, an omnipotent and omniscient and omnipresent God, and can man by searching find him out? On the other hand the plan which recognizes certain definite tendencies of matter, is no better off; neither one nor the other sees where their theory brings up.

In a recent critique in the *Princeton Review*, the dilemma of the physico-

mechanical school was pointed out. Is that of the physico-vital school any less marked? To say that matter is endued in certain ways, is no explanation of how it came so. Nor is it any business to the student of vital actions.

The philosophy of the *what*, has never been treated very courteously by the philosophy of the *why*, and in too many instances it was its own fault.

Life theories, whether physico-mechanical or physico-vital, do not relate to the problem of causation. The study of physiology and histology deal with things that are, and never mind how they came so. It is quite enough to know that certain brain-cells have certain functions, without asking how did they get them. The study of tissues, dead or alive, is the study of effects; it tells us *what*, not *why*; even our experiments, about which the empirical school of modern philosophy makes such a flurry and fuss, depend for their results a good deal too much on the individual opinions of their makers; makers whose manipulative skill and honesty should be alike, perhaps are alike, above suspicion. Not that it is worth while to say that laboratory experiment and library theorizing do no good, but that the crucial test is, can this theory best answer the exigencies of the practitioner of medicine? Can a man *treat* a disease any better because he can describe the intimate structural relations of an intestinal villus, whose parts he has never seen in action? Useless indeed is book learning in action, if it can not be called to instant use, but very much more useless is a knowledge of theoretical causes that can lead only to darkness and disgust. The contempt that is felt by so many men for "tubular philosophy," owes its existence mainly to the fact that tubular philosophy will not mind its own business. Let it concern itself with the changes that occur in disease, and let it pay as much attention as it will to facts and explaining their relations when these relations are observable. Let it, if it can, settle the question of the origin of tissue elements, but let it leave first causes alone. "Life Theories and Religious Thought" have no business together. Nor have life theories any proper place in physiological and pathological study.

It is all right for a man to investigate, as men have investigated, morbid processes, and for one to declare for the origin of pus, for example, by cells that leave blood vessels and another by cells that have had their pigment washed out, but when they attempt to explain the phenomena and abuse in words spoken and written all opponents, and one and all claims each his own as the only explanation, one may well wonder if there is not some truth in the declaration that the pursuit of knowledge is in vain.

THE MEDICAL PROFESSION AND THE PUBLIC.

BY L. N. DAVIS, M. D., FARMLAND, IND.

(Address of the President at the meeting of the Randolph County Medical Society, at Winchester, Ind., Jan. 11, 1882.)

GENTLEMEN:—Most of you have probably noticed, during the course of your professional lives, the apparently total absence of harmony between doctors and the public. Although the public may extend to the medical profession a very liberal patronage, and at times even show signs of personal sympathy, the sons of Esculapius are pretty generally regarded as a set of knaves and ghouls. Not that the public or any individual can have such views from actual observation; nor could such a view be entertained were critical observation extended, for too many unsettled bills are presented against the insolvent estate of the doctor at the close of his career. It seems to be pretty generally understood, however, that the doctors have entered into secret conclave, for the purpose of carrying out certain deep-laid plans, or furthering diabolical measures, which are altogether foreign to public welfare.

In the pending of an issue which involves the interests of both, but for the special benefit of the public, the latter will actually seem boastful of its chivalry in gaining a victory over the diminutive pauper who "peddles pills." If the people hold their own against any onslaught of the doctors upon what they deem their liberties, they feel that they have attained glorious ends. They expect to call upon the physician and pay him for his services; but when the latter asks that the public be protected against the enormous imposition of nostrums and their vendors, or makes other requests for the public welfare, there will at once be a hostile movement, the battle cry will be sounded, and the people will be in arms from one end of the country to the other, ready to do battle for what they deem their liberties, and in defense of the Jeffersonian principle which allows them life, liberty, and—any kind of medicine they may choose to take. Shocked by such unexpected resistance, the imbecile doctor stops and soliloquizes. He is not willing to contend with foes so mighty, for measures which look to their interests more than his own. Then again, he half persuades himself that he is injuring our Republican form of Government, and is finally willing to keep still, if he can avoid being indicted for treason.

This estrangement of the public and medical profession seems to have existed in past ages. Three centuries ago, when Galileo, the great physician and philosopher, perfected the telescope, and first viewed the beauties and grandeur of the heavens, he was interdicted by the Pope from further prosecuting his researches, and compelled to flee from his native country; and Copernicus met with opposition in his investigations of the solar system.

Yet who, in ancient or modern times, has made grander discoveries, or done more to advance civilization, than those men? Harvey and Jenner were the laughing stock of their respective communities, at the commencement of their discoveries, but the world never possessed greater benefactors.

Dr. D. Hayes Agnew, in an address at the University of Pennsylvania, said: "It has remained to me an unsolved paradox, that a profession whose members do so much to relieve human suffering, in all the walks of life, and are so willing to sacrifice for the benefit of others; a profession whose members ordinarily devote one-fourth of their time to the gratuitous dispensing of their services, and so few of whom accumulate a competency of this world's goods sufficient to keep the wolf from the door, or at least to remove the anxieties of advancing years; I say it is puzzling to explain, in the face of such a record, why so little sympathy exists between the physician and the public. Only let some question of general importance arise, in which the character or professional reputation of a medical man is involved, and ten to one the public will range themselves over against the doctor." And I will add that not infrequently many of the doctors will also range themselves over against the unfortunate brother, through intrinsic egotism, or for want of professional integrity.

What Dr. Agnew says of the public is undoubtedly true; and what I now say of the profession dividing against itself, has been demonstrated in too many instances; notably during the sickness of our late lamented President.

Now it cannot be denied by any philosophical and liberal minded person, that the medical profession has done as much to elevate the human race and advance human knowledge, as any other, though strenuous and even vicious objections might be offered against such a position. The theologian might interpose with his claims to preponderance of effect in social advance. It cannot be denied that religion has ever exerted a powerful influence in moulding sentiment and forming society. In some ages and places it has avored progress and encouraged civilization. At other times and places it has fettered genius and cramped the human mind. Many bright and rare intellects, radiant with power, have been the victims of its intolerance and thus lost to the world in their thirst for free thought and progress. While we admit that the modern Christian form of religion sheds a benign influence, it cannot be said that it has added much to human longevity, or the temporal welfare of men. The human race will advance intellectually, morally and physically, in direct proportion to the facts furnished science, by the labor of original thinkers, who delve into nature, as the great storehouse from which to obtain knowledge, as immovable as the laws of nature themselves. All theories looking to the welfare or destiny of man, not thus supported by investigation and established facts, are liable to crumble asunder and result in chaos or nonentity.

History is emblazoned, from the earliest ages to the present, with characters called great, because of their military achievements; or great because of an insatiable ambition for fame, whether attained by good or bad means; because they care not to see their fellow men suffer under the vain delusion that they are fighting the battles of their country, for liberty and against despotism. How many battles in the world's history are fought under this same delusive stimulus! Napoleon and Wellington each was animated by the same love of liberty and justice, on the field of Waterloo, and yet they were deadly foes. Lee sought to protect his fireside, while Grant was determined to save the Union. Both were probably acting under the same impulse of patriotism. War never benefited the human race by encouraging science or the progress of civilization. It inures mankind to deeds that are foreign to a high degree of intellectual development, and the attainment of noble purposes. The victors are defeated, the defeated are vanquished, and all are likely to suffer directly or indirectly from bloodshed.

What child that has ever read a page of American history is not familiar with the names of Washington and Lafayette; of Grant, Sherman and Thomas; and yet how few know of McDowell, Drake, Sims, Gross or Emmet. While the latter spent their most precious moments in successful efforts to alleviate human suffering, to be forgotten except by a grateful profession, the former figured in a panorama of carnage before the world, to be perpetuated in history.

Statesmen, remarkably great in exciting strife through the pretense of defending National integrity, are not wanting. Of those who seek to prevent bloodshed by liberality and conservatism, the world has seen but few. Certainly Lord Beaconsfield was of this number. As demonstrative of his cool deliberation, the following anecdote is related: At a dinner in high life, while waiting to be served he was asked, by an impulsive lady at his side, concerning the apparently inevitable war between Russia and England: "Why delay? What are you waiting for?" "Mutton and potatoes!" was the reply. And he continued to wait till the memorable treaty which followed, when England attained her desired ends, through his skill, without bloodshed, and thus a war was averted which would have involved the whole world, and Disraeli merited greater laurels than were ever won on any battlefield.

Lawgivers have handed down to us many beneficent laws, as a standard of justice between men; and yet under the guise of law the innocent have suffered and the criminal gone unpunished.

The medical profession is unselfish, in its relation with the public. Its votaries expect but little reward and attain no notoriety, yet their sole object has ever been to alleviate human suffering and promote longevity. Their labors extend in all directions, and have a direct influence on the advance

of most of the sciences, and consequently contribute much to the social status. To them society is indebted for more valuable discoveries than to all other scientists combined. There is scarcely any science to which medicine has not contributed something, and many of the special sciences owe their existence to the medical mind. Then to what can the medical profession attribute this public disfavor. As is the case in all branches of fraternity, the fault does not all, probably, rest on either side. It seems that the public is somewhat suspicious of the doctors, intrinsically. Probably we cannot blame them for it. The profession must pursue some course to disabuse their minds. The public does not deny the importance of the noble calling of the doctors, but they very logically conclude that the medical profession is subject to too many internal convulsions and sectional wrangles to be entrusted with any important public measure. Discord is too rife. There is no unity of action. If the profession were marching *en masse* against a fell epidemic, and a small pill brother should indiscretely lisp one of the dogmas of Hahnemann, by way of preparation for the attack, there would be an insurrection at once. No further steps would be taken until the infinitesimal man were annihilated, and the code rigidly applied to the remainder of the force. The opposition to the epidemic would be secondary to the annihilation of the individual offender.

At very short intervals there appears upon the world's arena a combat between the representatives of two sections of medicine. The unscrupulous antagonists seeks not an obscure spot, as was the custom in days of dueling, but where the chief of a Nation is in death agony, and all the world is the auditory, there they lend tragedy to the drama. The world resounds with epithets against the profession. We need but revert to recent dates to refresh our minds upon episodes. In the late sickness of the late Earl of Beaconsfield, we were entertained with the ethical aspect of the case. Sir William Jenner would not see him with Dr. Kidd, because the latter was an irregular, and Sir William said: "I must decline, for between us no agreement is possible, and with me compromise is impossible." But the equally eminent Dr. Quain consulted with Dr. Kidd, and publicly announced his coincidence with him in the treatment of the case. This disagreement, at such a critical and inopportune time, arose from the proscription of ethics; and if it would have been a violation of the code for Sir William Jenner to have consulted with Dr. Kidd, it was also a violation when Dr. Quain consulted with him. But we find that it is not always necessary to introduce this irregular element to excite a medical fermentation. Drs. Bliss and Baxter could pass the lie and make threatening demonstrations, in the adjoining room to the one occupied by our dying President. This mild expression of personal feeling may have been strictly within the limits of the code; but it was an untimely adjudication of affairs, to say the least.

If Drs. Agnew and Hamilton, both eminently skilled and learned, apply all the means known to science, to save a dying President, the classical Drs. Hammond and Byford are ready to swear that they killed him, and that death was not the result of his wounds. Drs. Fordyce, Barker, Gray and Loring swear that Guiteau is perfectly sane and responsible: Drs. George Beard, Hammond and Clymer are ready to swear that he is insane as a "March hare," and irresponsible. It would seem reasonable that more harmony and unanimity of purpose should exist with the regulars in many localities, before they execute the code upon the irregulars. If it be true that all forms of irregular medicine protest against the best traditions of orthodox clinical medicine, it cannot be true that all the irregular practitioners are working against the best interests of medical science. On the other hand, many of these are practitioners of sterling honesty, earnest seekers after truth wherever it may be found. My earnest plea is, that all such be received in full fellowship, and dealt with as gentlemen at the bedside; conversely, where men exhibit selfishness and inhuman conduct, whether regular or irregular, they should be expunged, not only from professional communion, but also from decent society.

SOCIETY PROCEEDINGS.

CLARK COUNTY MEDICAL SOCIETY.

February Meeting—Tenth Session of the Thirty-Second Year.

The Clark County Medical Society met at Agricultural Rooms Thursday afternoon, February 9th, Dr. T. M. Carroll in the chair. Members present: Drs. Bryant, Buckingham, Carroll, Hall, Kay, Nelson, Reeves, Rodgers, Senseman, Seys and Totten.

The Board of Censors reported in favor of receiving Drs. Wright, Morrison and Applegate to membership, which report was received and unanimously adopted.

Dr. Kay having been previously appointed to open the discussion on smallpox, on this occasion, expressed his intention of confining himself to only a few features of the subject, inasmuch as so much had recently been said and written, in this city, relative to it. He would, after making a few brief allusions to the history of variola, proceed at once to speak of vaccination and re-vaccination, but more especially the latter. The history of smallpox might be divided into three sections; the first extending from the time of

its original cognizance and accurate description by scientific medical men, in the early part of the tenth century, to the discovery of vaccination by Dr. Edward Jenner, of England, in 1798. The second part of this history would reach from the last named event to the very late time when the practice of re-vaccination had been introduced and strongly urged by our highest and best medical authorities; and the third or last division included only the few late years during which this very important prophylactic measure had been in vogue. Going back then again for a few moments to study the early history of this formidable and highly contagious disease, we learn that although there were some obscure statements by the older writers as to its having been known in Turkey and Arabia as early as A. D. 572, yet no full and satisfactory description of smallpox was ever given until the time of Rhazes, an eminent Arabian physician, who wrote concerning it in the first of the tenth century. About this time also the disease made its appearance in England and soon after the Crusades it spread throughout most of the temperate countries of Europe; but not till many years later did it reach Norway, Lapland and Greenland. In 1517 it was carried from Europe to the West Indies, and in 1520 to Mexico, where it proved fearfully destructive to human life, amounting as one reliable historian informs us, to three millions of deaths. It seems that in 1707 smallpox was introduced into Ireland, causing the destruction of one-fourth of its inhabitants, and that in twenty or thirty years afterward it entered Greenland, and nearly depopulated that country. One notable fact connected with this disease has been that first visitations in every land have been much more destructive than subsequent ones. This may have been owing to improved modes of medical and hygienic treatment on the latter visitation, and the practice of isolation, resultant upon the discovery of its contagiousness. But especially would this diminished fatality be looked for after the practice of inoculation and vaccination.

Inoculation had been resorted to in Turkey and other oriental countries, from whence the celebrated Lady Montague, who had, with her husband, long been a resident of Constantinople, brought the measure to England by inoculating her own children, upon her return home in 1722. From that time inoculation became common in England, but was never extensively resorted to on the Continent, owing to the prejudice against it. The principal, and almost the only, advantage of inoculation over the ordinary way of contracting smallpox, was the fact that in the former case an opportunity was afforded of previously preparing the system by an alterative and antiphlogistic course of medical treatment. Although the aggregate mortality from variola was diminished very materially after the resort to inoculation, yet the dangers attending it were so great that the British Parliament passed an act prohibiting its practice. The experimental workings of vaccination, how-

ever, had been far different and more satisfactory from the very first. The immunity secured by vaccination was soon proven to be as perfect as a previous attack of smallpox itself and the dangers connected with the operation were scarcely worth mentioning, especially where due care was exercised in selecting and applying the virus. But extensive observation has taught the medical profession, and the intelligent world at large, that immunity enjoyed from vaccination gradually becomes weaker and weaker as the years pass on, until after the laps of ten, fifteen or thirty years from the primary vaccination, exposure to smallpox will be followed by a modified form of the disease, more or less severe, called varioloid. A good vaccination received in infancy might be followed at middle age, or later in life, by a varioloid scarcely distinguishable in severity from regular smallpox. This would not seem so strange were we to consider that the records of smallpox hospitals, as well as of private practice, show cases where persons die of a second attack of apparently unmodified variola. Taking those well-established facts as a basis, our profession has very properly taken a firm stand not only in favor of re-vaccination, but of frequently repeated re-vaccination, as the only sure method of exterminating the loathsome malady under consideration. The process is so safe and so convenient as to make it altogether desirable and practicable upon every epidemic visitation of smallpox, and it ought always to be promptly resorted to on every such occasion. So long as this is not done, just so long we will be having the varioloid at least, and this will communicate regular smallpox to the unvaccinated, and thus add perpetually to the jeopardy of the public health. Since the introduction of the pure bovine virus as a source of protection to the people, the old and generally ill-grounded objections to humanized matter can no longer be in the way of the fearful, in regard to vaccination, and thus as we think the way has been fully prepared for compulsory measures toward those who refuse its benefits. Many of those persons whose ignorance and prejudice keep them from availing themselves of the great providential remedy for smallpox are the very ones who most need extraneous help when afflicted with the disease. This fact alone, to say nothing of others far more important, would give the people as represented by their municipal and State authorities, a just claim upon every citizen to submit not only to a primary, but, if need be, to a secondary or tertiary vaccination. So long ago as 1850 Dr. Barlow, of London, physician to Guy's Hospital, to the Magdalen Hospital and to the Philanthropic Society of that city, urged the duty of re-vaccination in his public lectures and in his highly authoritative work on the practice of medicine. This eminent author states that for several years after Jenner's discovery of vaccination nothing had occurred to shake the confidence in the practice of vaccination, but that, in the course of time, cases of smallpox in a modified form presented themselves in persons concerning whom there was satisfactory evi-

dence of their having been duly vaccinated; and these cases became more frequent as there were more and more persons living who had been vaccinated ten, twenty or more years previously. The history of these cases certainly favored the belief that the protective power of vaccination diminished in the course of time, as numbers who were exposed to contagion in childhood with impunity suffered from modified smallpox in after years. Dr. Barlow further says that he himself was purposely exposed to the contagion of smallpox at the age of seven years, having been vaccinated in infancy, by being brought in contact with the children suffering severely from it, and with perfect impunity, but when at the age of twenty-two he was again exposed, during an epidemic of the disease, he contracted a severe modified small-pox; and he states that many cases had occurred, under his notice, of varioloid in persons past the age of puberty who had been vaccinated in infancy, though cases were not wanting of modified small-pox in childhood and early youth. The inference from all this is, that the protective power of vaccination in any individual is impaired by time, and that it is probably still further affected by the change which takes place at puberty. Our authority strongly recommends a renewal of the operation, at least once after that age. Dr. Kay thought it safe to affirm that no standard authority published within the last fifteen or twenty years, and such as had been adopted as a text book by any of the American or English medical colleges, took ground against this position, but rather in its favor, notwithstanding what some of our local lights may say about it.

Before dismissing this subject of variola, he wished to say, in conclusion, a word or two relative to the diagnosis between varioloid and varicella, or chicken-pox. Close attention to this point by the practitioner would often prevent mortifying and sometimes dangerous blunders, especially where variola is mistaken for varicella. It is varioloid rather than unmodified small-pox, which is likely to be thus mistaken. Chicken-pox attacks infants and young children almost exclusively. There is little or no premonitory fever, so that the first thing noticed is the eruption, appearing on the scalp, neck, breast, and shoulders. Very few vesicles appear on the face, in which particular it differs from varioloid. The vesicles in varicella are perfectly transparent, fresh crops appearing every two or three days in succession, so that by the time the last make their appearance, the first, which have assumed a pearly and opaline look, begin to shrink and dry up, leaving small scales, but seldom leaving cicatrices. The vesicle of varicella is perfectly simple, consisting of the detached cuticle raised by the fluid. It is during the first two days that the difference between a varioloid and a varicella vesicle can be best seen, owing to the similarity between them. Afterward, when they begin to shrink, or after some of them have been irritated to suppuration by rubbing, it is difficult to diagnose. In small-pox

and varioloid the eruption appears first on the face, second on the wrists, thirdly the trunk, and fourthly the lower extremities. Not so, as we have seen, with chicken-pox; and the papule shows a depressed center in the third day of small-pox, but not until later in chicken-pox. Our attention to the points of diagnosis is all the more important, as epidemics of these two eruptive diseases often appear contemporaneously in the same neighborhood.

Dr. Kay then concluded his remarks by giving a brief account of the small-pox visitation here in the winter of 1861, at which time he had charge of most of the cases, as city physician, and as medical attendant at the suburban small-pox hospital, thus having ample opportunity of knowing the extent and character of the epidemic. The public excitement in this city at the time was almost entirely overshadowed by the much greater sensation produced by the attack on Fort Sumpter and other incidents connected with the early history of the late civil war.

Dr. Buckingham gave an account of a still earlier visitation of small-pox in Springfield, when he had his first experience with the disease. It first appeared in the person of a play-actor named Mason, who with his family and one child was staying at the old National hotel of this place. Upon seeing him the face was covered with the eruption, and to make the situation worse, the child, a little boy, was unvaccinated, and no vaccine virus short of Cincinnati. But by special speedy communication, vaccination was effected on the second day of the father's eruption, and thus the disease was entirely forestalled, so far as the boy was concerned, the operation having taken finely in a few days afterward. The stricken family were removed to a good, airy pest-house improvised for the purpose, and thus the spread of the malady was prevented. No other cases would have occurred at all, had it not been that some one stole the doctor's small-pox coat from where it was hanging in an apple tree in his back yard, resulting in nearly a dozen cases in one family in the extreme northwest part of the town. The ease of protection to the boy demonstrated the rapid action of the vaccinia as compared with variola itself.

Dr. Seys stated that one of the most important points connected with the subject under consideration was the diagnosis between small-pox and other eruptive diseases. Mistakes upon this point brought discredit upon the medical profession and danger to the people. It might be an easy thing to diagnose a case of small-pox, even although somewhat disguised, at a time when it was present in the community as an epidemic, on account of the sharp lookout which is always made at such times; but when the very first case making its appearance in a neighborhood is entirely unlooked for, especially when the case is a little obscure or complicated, the physician is apt to be off his guard, and may very naturally and easily make a blunder. Dr. Seys made some able and critical observations relative to the diagnosis

between variola and varioloid on the one hand, and varicella, scarlatina, and hemorrhagica on the other. He commented upon the Erter case and others occurring north of Lagonda, a few years since, where the disease was so disguised by the hemorrhagic diathesis and vibices as to make a correct diagnosis difficult at first. Dr. Seys then gave an account of the varioloid in the eastern part of Springfield township, and recited the valid rules by which he was regulated in rendering his decision as required of him by the township trustees. In regard to vaccination, the Doctor discussed the difference between the bovine and the humanized virus. He believed the time to be not far distant when there would be a reaction both with physicians and people in favor of well-selected, pure humanized virus. Its action was milder, more certain, and fully as protective, to say the least. Time alone would reveal the correctness of this opinion.

Dr. Senseman called attention of the Society to the exact meaning of the term vaccination, and to what constituted its validity. He thought there was too little virus introduced into the system. It should be inserted in at least two points; three or four would be still better. Dr. S. quoted various English and American authorities, as well as French, to prove his position. The rates of mortality were in inverse ratio to the number of places on the body at which the virus had been introduced. The Doctor then presented to the Society some specimens of vaccine matter which he had recently prepared for his own use. It had been put up according to the suggestions of Dr. Hartshorn, of Philadelphia, and other English practitioners of eminence who had given their formula.

Dr. Nelson was pleased with the thorough ventilation which vaccination had received at this meeting. He had been trying to keep trace of his cases of vaccinia, but found it difficult to do so. He always used the bovine virus and found its effect to be quite severe. Many of the arms became so sore as to disable the patient. He had sometimes to repeat the operation before it took, but not very often. He believed it important to use great cleanliness in the practice of vaccination. He did not scarify, but simply abraded the skin.

Dr. Hall gave his own experience in the use of bovine virus. The sores made on the arms were as a general thing quite large.

Dr. Buckingham reported an instance of a suicide occurring several weeks ago, and coming under his professional observation. The peculiarity of the case was the fact that the man shot himself with a single-barreled pistol, and not succeeding in his purpose the first time, reloaded his pistol and fired again, the ball entering within an inch of the first and penetrating the heart. The strange thing was the suicide's ability to reload and fire his pistol the second time, when we consider the fatal character of the first shot. Dr. B.'s comments on this case were of considerable interest to the Society.

Dr. Seys reported from the committee appointed last month for the purpose of publishing the views of the Society regarding certain important practical points concerning small-pox in Springfield and vicinity. The report was accepted and the committee was discharged.

Dr. Rodgers addressed the Society upon the subject of the Obstetric Art. After making a series of able remarks of a general nature relating to the subject, Dr. R. reported three interesting clinical cases occurring in his own practice. The subject was discussed by Drs. Bryant, Buckingham, Senseman, Seys, and Reeves.

The Society then adjourned to meet again on the second Thursday in March.

REVIEWS AND BOOK NOTICES.

Prices are always inserted when furnished by the publisher, or when obtainable from the bookseller.

Sympathetic Diseases of the Eye. By Ludwig Mauthner, M. D., Royal Professor in the University of Vienna. Translated from the German by Warren Webster, M. D., Surgeon United States Army, and James A. Spalding, M. D., Member of the American Ophthalmological Society, Ophthalmic Surgeon to the Maine General Hospital. New York: Wm. Wood & Co. 1882. 12mo. Pp. 220. Cloth. Price, \$2.

This is a comprehensive monograph on a most important topic in ophthalmology. It is the only special treatise on this subject with which we are acquainted. The author is a well-known specialist of Vienna, and has here collected and carefully analyzed all the most interesting cases published in modern literature, adding thereto the results of his own rich experience in the pathology and treatment of this class of cases. The translation is well done, and the foot-notes which have been occasionally added by the translators increase the value of the book.

Illustrations of Dissections. In a series of original colored plates representing the Dissections of the Human Body, with descriptive letterpress. By George V. Ellis, Professor of Anatomy in University College, London, and G. H. Ford, Esq. The drawings are from nature by Mr. Ford, from directions by Prof. Ellis. In two volumes, containing fifty-eight full-page lithographic plates in colors. Vol. I, 2d Edition. New York: Wm. Wood & Co. 1882.

This is the first volume of the current year of *Wood's Standard Library*. It is a *fac simile* reproduction (reduced on a uniform scale) of the original work, where the engravings were life-size. It contains the descriptions of the head and neck and upper extremity, with twenty-eight full-page engravings, beautifully colored.

A Manual of Organic Materia Medica. Being a guide to Materia Medica of the Vegetable and Animal Kingdoms, for the use of Students, Druggists, Pharmacists, and Physicians. By John M. Maisch, Phar. D., Professor of Materia Medica and Botany in Philadelphia College of Pharmacy, with many illustrations on wood. Pp. 441. Philadelphia: H. C. Lea's Son & Co. 1882.

This concise hand-book is very brief in the medical relation of drugs—too much so to serve as a therapeutic guide to the doctor, though it satisfies the need of the pharmacist. Drugs are grouped according to their physical and structural properties, so as the better to compare them and determine the characteristics of each. The illustrations are copious and elegant.

The International Encyclopedia of Surgery. A Systematic Treatise on the Theory and Practice of Surgery by Authors of Various Nations. Edited by John Ashhurst, Jr., M. D., Professor of Clinical Surgery in the University of Pennsylvania. Illustrated with chromo-lithographs and woodcuts. In six volumes. New York: Wm. Wood & Co. 1881.

This first volume contains articles on Inflammation, Erysipelas, Pyemia, Rickets, Scurvy, Scrofula and Tubercle, Hydrophobia, Rabies, Glanders and Malignant Pustule, the Reciprocal Effects of Constitutional Conditions, Surgical Diagnosis, Operative, Minor, and Plastic Surgery, Anesthetics, Shock, Traumatic Delirium and Delirium Tremens, and Amputations. The volume is a handsome royal octavo, and is profusely illustrated with three full-page plates, lithographed in colors, and nearly two hundred fine wood-engravings.

The writers who contribute to this volume are well known, and include such men as Stricker, Van Buren, Stille, Delafield, J. Lewis Smith, Wales, Verneuil, Agnew, Hunt, Lyman, Brinton, and the eminent editor of the work himself.

The range of subjects given above furnishes a broad and deep foundation for the remaining volumes, and fairly denotes how exhaustive will be the treatment of surgical science in the completed series.

The publishers' announcements had excited high expectations, which will not be disappointed in any particular.

Vick's Floral Guide.—Of the many Catalogues sent out by Nurserymen to inform the people and beautify and enrich our country, none are so beautiful

and instructive as *Vick's Floral Guide*. Its paper is choice and its illustrations handsome, while its Colored Plates are gems. This work, although costing but ten cents, is handsome enough for a Gift Book, or a place on the parlor table. Published by James Vick, Rochester, N. Y.

Anesthetics Medico-Legally Considered. By J. G. Johnson, M. D., Brooklyn, N. Y. Read before the Medico-Legal Society of New York—Meeting of Dec. 7, 1881.

The author sums up as follows :

1. Anesthetics stimulate the sexual functions ; the ano-genital region is the last to give up its sensitiveness. Charges made by females under the influence of an anesthetic should be received as the testimony of an insane person is. It cannot be rejected ; but the *corpus delicti aliunde* rule should be insisted on. Dentists or surgeons who do not protect themselves by having a third person present do not merit much sympathy.
2. Death from administration of chloroform after a felonious assault, unless the wounding was an inevitably fatal one, reduces the crime of the prisoner from murder to a felonious assault.
3. The surgeon has no right to use chloroform to detect crime against the will of the criminal.
4. The army surgeon has the right to use chloroform to detect malingerers.
5. The medical expert, notwithstanding he is sent by order of court, has no right to administer an anesthetic against the wish of the plaintiff in a personal damage suit, to detect fraud.
6. Gross violations of the well-known rules of administering anesthetics, life being lost thereby, will subject the violator to a trial on the charge of manslaughter.
7. A surgeon allowing an untrained medical student to administer anesthetics, and life being thereby lost, will subject himself to a suit for damages. What he does through his agent he does himself.
8. The physician who administers an anesthetic should attend to that part of the work and nothing else. He should have carefully examined the heart and lungs before hand. He should have the patient in the reclining position, with his clothes loose, so as not to interfere with respiration ; should have his rat-tooth forceps, nitrite of amyl, and ammonia, and know their uses, and when to use them and artificial respiration.
9. In operations on the ano-genital region and the evulsion of the toe nail, complete loss of sensation in these parts should never be allowed, and no operation on these parts at all should be had under an anesthetic unless by the approval of a full consultation, who have a knowledge of the dangers.
10. Chloroform cannot be administered to a person who is asleep without

waking him, by a person who is not an expert. Experts themselves, with the utmost care, fail more often than they succeed in chloroforming adults in their sleep.

Obstetric and Gynecological Literature, 1876-1880. By James R. Chadwick, Boston, Mass. (Reprint from *Boston M. and S. Journal*.)

This gives a valuable summary of the progress in literature of these departments during five years.

Eighth Annual Report of the Superintendent of the Cincinnati Sanitarium. For the year ending Nov. 30, 1881.

Whole number treated during year, 134; of which 31 were discharged "restored," 32 "improved," 10 "unimproved." Seven died, and 47 remained at the close of the year.

A Practical Treatise on Hernia; by Joseph H. Warren, M. D., member American Medical Association, British Medical Association, &c. Fully illustrated. Second and Revised Edition. Boston: James R. Osgood & Co. 1882.

This second edition of Dr. Warren's "Practical Treatise on Hernia" appears considerably altered and improved. Its scope is enlarged by the addition of chapters on Artificial Anus, Wound of the Intestines, Hydrocele and Varicocele, Recent Operations for Hernia, and kindred subjects.

The general tone of the edition, as compared with the first, is somewhat modified, but it is yet disfigured by the air of immense superiority or authority which pervades it.

The author has unlimited confidence in "my operation," "my instruments," and Dr. Joseph H. Warren.

Nearly all of the author's additions to the text are massed together in one chapter, and christened "Observations on Hernia." Appropriate numerals in the body of the work indicate the places into which these new paragraphs are to be sandwiched. This awkward and annoying arrangement results from the use of a portion of the plates from which the first edition was stereotyped. The enlarged experience of the author only confirms his confidence in the perfect safety and efficiency of subcutaneously injecting the hernial rings (not the sac) for the radical cure of rupture. Dr. Warren injects a mixture of his "own devising," which is a modification of Dr. Heaton's fluid extract of oak bark.

He has also invented a syringe with a needle of peculiar construction, which greatly facilitates the operation, and he, very properly, strongly protests against the use of the sharp, or angular-pointed needle recommended by some operators. In the previous edition the author credited Dr. Heaton

with the discovery of the "injection cure," but now accords the honor to Prof. Joseph Pancoast, who operated as early as 1836. He suggests the propriety of calling the operation the "Pancoast Operation for the Cure of Hernia by the Subcutaneous Method."

While it is true that the radical cure of hernia by the injection method is the leading idea in Dr. Warren's treatise, and is always prominently in the foreground, the book also contains a large fund of interesting and practical information in regard to the different forms of hernia and will amply repay careful reading. It is neatly printed and copiously illustrated. Three full page heliotype plates, reproduced from Bourguery & Blandin, render invaluable aid in studying the anatomy of hernia.

W. J. C.

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DR. H. A. TOBEY, Supt. of the Dayton Asylum for the Insane, has been appointed by the President of the Society to report on Insanity at the June meeting.

THE NEW CODE OF ETHICS.

Just as we are going to press intelligence reaches us that the New York State Medical Society at its late meeting in Albany, adopted a new code of Ethics, in some of its features antagonistic to the time-honored Code of the American Medical Association. The full text of the new code will be found in another column of the present issue. The chief interest of the new departure centers in the following clause, regulating consultations: "Members of the Medical Society of the State of New York, and of the medical

societies in affiliation therewith, may meet in consultation legally qualified practitioners of medicine. Emergencies may occur in which all restrictions should, in the judgment of the practitioner, yield to the demands of humanity."

A "legally qualified practitioner," within the meaning of the resolution, is one who is properly licensed under the New York law, no matter what creed or system of medicine he may profess or practice. This action is far reaching in its influence, and is destined to disturb the relationship heretofore existing between regular and irregular practitioners over the whole country. The question will certainly be thoroughly discussed at the coming meeting of the American Medical Association, when the New York delegates present their credentials. For these reasons the action of the New York Society is a legitimate matter for discussion here. We have only time, in the present issue, to consider the subject in a few of its aspects, and shall chiefly confine our remarks to the one class of so-called *irregulars* which is numerically the strongest—the Homeopaths.

The question of consulting with irregular practitioners, which is now formally presented to the American profession, has recently largely occupied professional attention in England. The ethical questions which sprung up in connection with the illness of Lord Beaconsfield, are familiar to all. With the belief that Dr. Kidd was a homeopathist, Drs. Jenner and Quain refused to meet him in consultation; but just as soon as he openly repudiated the title and claimed to be regular, notwithstanding his previous record, Dr. Quain, acting under the advice of Sirs Watson and Paget, gave the eminent patient the benefit of his skill. At the meeting of the British Medical Association, in last August, the subject was discussed by the distinguished lecturers on Medicine and Surgery. In the address on Medicine, Dr. Bristowe, after a thorough exposition of the fallacies and absurdities of Hahnemannian medicine, favored consultations with men who practice, as he terms it, "such a palpable imposture as Homeopathy." Mr. Hutchinson, in the course of his address on Surgery, admitted that in nineteen out of twenty cases "the motive of the man who puts 'Homeopath' on his door is low and self-seeking," and yet he reaches the absurd *non sequitur*, that it is proper to meet him in consultation over *surgical* cases. Notwithstanding the arguments were strongly stated by such able and eloquent advocates as the gentlemen above named, the Royal College of Physicians, a few weeks ago, after full discussion, passed the following resolution by a unanimous vote: "The College considers it desirable to express its opinion that the assumption or acceptance by members of the profession of designations implying the adoption of special modes of treatment, is opposed to those principles of the freedom and dignity of the profession which should govern the relations of its members to each other and to the public. The College therefore expects

that all its Fellows, Members and Licentiates will uphold these principles by discountenancing those who trade upon such designations." Close upon the heels of this happy solution of the knotty problem by our transatlantic brethren, comes the action of the New York State Society.

Let us soberly ask ourselves, who is benefitted by the provisions of the new code? Certainly not regular medicine. Scientific medicine can not hope to be greatly benefitted by affiliation with the isms and pathies of the day. While it would be absurd to stigmatize all outside of the regular ranks as fools and knaves, we have yet to learn of any great discovery in theory or practice which has emanated from them. Scientific medicine has surrounded herself with no walls. She demands no other proof of allegiance, and imposes no other conditions, than the abandonment of exclusive dogmas and trademarks. Hence the old code was liberal enough.

The humanitarian idea which assumes such importance in the new code, is a farce. The "demands of humanity" are not satisfied by bringing together at the bedside conflicting and hostile opinions. On the other hand, the public have a right to feel that one whom the regular faculty uphold and endorse by action, is a safe family physician. In the large majority of cases the attending physician selects his own consultant. The dictates of self preservation will compel him to select one who, though he may differ in the consulting room, will be very careful not to disturb the confidence of the family in their medical advisor. Hence the practical working of the change is to strengthen the hands of the irregulars, and to fasten a horde of irregular and incompetent physicians upon the public.

It will not do to thrust into the background the fact that a consultation, in the full meaning of the term, is an utter impossibility between a homeopathist and a regular practitioner. The very idea of a consultation presupposes common ground upon which to meet. It is impossible that a patient should be benefitted if the consultants can get no nearer together than the opposite sides of a circle. One or the other must give up his convictions, presumably honest, and become responsible for a line of treatment of which his conscience can not approve. Admit, now, that the advice of the consultant is accepted; consultations are chiefly valuable in developing a line of treatment, but if the attending homeopathist does not understand or appreciate the reasons for the plan, how can it be carried out to the patient's benefit. But it may be urged that homeopaths no longer practice the teachings of Hahnemann, and that the law of similars and the use of infinitesimal doses are abandoned; to which we answer, let them give up their trademark, and they are at once within the spirit of the old code. As a matter of fact, we believe that practically only the name of Homeopathy lives to-day. The name is retained to catch public patronage, thus adding hypocrisy to its other shortcomings. The new code proposes a novel method of settling the difference

of opinion which will necessarily arise in such consultations. The responsibility of deciding when doctors disagree is thrown upon the patient or the distracted friends; as if the laity were competent to decide medical questions. We do not doubt but that in the wordy battle for the possession of the patient, a few judiciously uttered remarks about "strong medicine," "ruined constitutions," etc., will easily win the victory.

In conclusion, it does seem as if our New York friends have been guilty of over-hasty legislation, and we predict that the profession of the country will discountenance their action. The new code will be heartily welcomed by all those who trade under special designations, for its effect will be to strengthen them before the public and to demoralize, temporarily at least, the friends of legitimate medicine.

W. J. C.

HOMEOPATHY AND THE BRITISH MEDICAL PROFESSION.—In connection with the recent action of the New York State Medical Society, the following clipping from the London *Lancet* of Feb. 4, 1882, will be of interest to our readers: "The Southwestern Branch of the British Medical Association does not, apparently, intend to allow the question of the relations existing between homeopathic practitioners and the Association to remain in its present unsatisfactory state. The subjoined resolutions were passed unanimously at the last quarterly meeting of the branch, held at Plymouth on Dec. 31st.

1. That this meeting desires to express its entire disapproval of the views in relation to consultations with homeopathic practitioners, expressed by the readers of Addresses in Medicine and Surgery at the annual meeting of the Association at Ryde in 1881.

2. That the meeting desires to direct the attention of the Committee of Council of the Association to the resolutions in regard to the homeopathic practitioners passed at the annual meeting of the Association in 1852, and reaffirmed at the annual meetings of 1858 and 1861; and now calls upon the committee of Council to put in force as speedily as possible, By-Law 3 against homeopaths and all members of the profession who assume designation implying the adoption of special modes of treatment."

W. J. C.

VACCINATION.

The present wide-spread prevalence of small-pox has led to a very unusual degree of thoroughness in vaccination and revaccination. This has resulted in an extraordinary demand for vaccine virus. Through the efforts of those who have been engaged in the propagation of the bovine virus, there has grown up, within the past few years, a wide-spread distrust of the humanized virus, especially among the laity. Hence the demand has been for the

bovine, to the almost entire exclusion of the humanized. As a consequence, the producers of the former have been, without exception, utterly unable to fill the orders that poured in on them from all quarters, by mail and telegraph.

Human nature is very like the world over. The temptation to increase the quantity of virus at the expense of the quality, was very great; the opportunity to do so was excellent; and—human nature is very weak. How natural, then, to shorten unduly the period of maturing of the vesicle; to press out too thoroughly the contents, though thus adding blood and pus to the pure lymph; or to even add foreign materials to increase the bulk of the precious fluid. While we are not positive that any of these causes of deterioration have been in actual operation, we do know that the reports that come from all parts of the country, confirmed by our own observation and experience, bring only complaints of absolute failure to get any results, of the production of sloughing, gangrenous ulcers, with symptoms of blood-poisoning, and of the appearance—in some primary cases, and frequently in secondaries—at the points of scarification, of elevated tumors, somewhat resembling keloid growths, whose pathology has not yet been given. Although some have had better success than others, none have been satisfied. As a result of this dissatisfaction, a reaction is setting in in favor of the humanized virus, and while some “vaccine farms” have been as thorough and painstaking during the late pressure as ever, they must suffer the consequences of the ignorance or rascality of the others.

Again: there is no disguising the fact that there is a growing feeling of distrust, among the people, of the efficacy of vaccination. To counteract this feeling, three things must be done: first, the virus itself, whether bovine or humanized, must be selected with far greater care than heretofore; second, vaccination must be performed *systematically*, by each physician among his clients; i. e., he should not wait till the epidemic comes, when all is hurry and confusion, but should regularly vaccinate each babe at six months, and revaccinate each child at, say, sixteen years; third, the operation should be more carefully and thoroughly performed. The physician should see each case at least a second time, at about the seventh day, to see that he has obtained a good result. He should vaccinate in at least three places; for, as shown by Marson's tables, the mortality, in small-pox, in unvaccinated persons, is 37 per cent.; in those stated to have been vaccinated but having no scar, 23.57 per cent.; in those having one scar, 7.73; two scars, 4.70; three scars, 1.95; four or more scars, 0.55. Or, instead of vaccinating in so many points, the physician may follow the plan of *vaccinisation* pursued by Dr. Warlomont, Director of the State Vaccine Institution at Brussels, as follows:

“When a child is brought back at the expiration of the first seven days, if it be revaccinated on the spot, even with its own vaccine lymph, it may be

that there will be a fresh eruption, feeble for the most part, but occasionally showing all the signs of classic vaccinal pustule. What conclusion is to be drawn, if not that the first inoculation, insufficient to protect the subject against a second vaccinal impregnation, was *a fortiori* insufficient to guard it against variola? Hence the necessity of fresh insertions until the complete exhaustion of vaccinal receptivity. This is what I term vaccination. Thus every child brought back at the end of eight days should be revaccinated on the spot, even with its own vaccine, if it be in proper condition. If this second vaccination answers well, a third should be performed, and so on, till the patient be completely vaccinated.

"I have a decided conviction that if all children were thus vaccinated, the immunity from small-pox would be much greater than at the present time; and it is, perhaps, from my constantly having put it into practice, that my successes have been so constant, and the result of my vaccinations so thoroughly satisfactory."

STARLING MEDICAL COLLEGE.

The Commencement exercises of the thirty-fifth session of this school took place at Comstock's Opera House, Thursday evening, Feb. 23d.

Mr. Joseph Sullivant, President of the Board of Trustees, had charge of the programme.

Prayer was offered by Rev. Dr. Baily.

Prof. H. G. Landis, Registrar, then called the names of the graduates, who filed upon the stage in two divisions, and presented them to the President, who thereupon conferred the degree.

Music was furnished by the Barracks Orchestra.

Prof. D. T. Gilliam delivered the address on behalf of the Faculty, and was followed by Rev. C. H. Payne, D. D., L. L. D., President of the Ohio Wesleyan University, who gave the address of the evening.

The following is the list of graduates; fifty-two in number:

W. B. Cabbage, Freeland, Mich.; C. D. Brown, Cadiz; C. F. Cookes, Columbus; A. K. Follett, Granville; L. R. Van Sickle, Sugar Grove, Penn.; Wm. G. Moss, Gibian's Station; C. H. Rife, Cheshire; J. T. Nicholson, Rosamond, Ill.; Jacob Rutter, Logan; W. G. McGlumphy, Rock Lick, W. Va.; J. T. Snyder, Lilly Chapel; C. W. Salisbury, Russelville; S. L. Kistler, Lancaster; W. E. Ireland; Cross Roads; E. L. Goff, Goff P. O., W. Va.; S. E. Boggs, St. Johns; DeWitt C. Newman, Quincy; J. E. Russell, Mt. Vernon; J. W. Lilly, Circleville; L. A. Parks, New Lexington; C. M. Bethausser, Columbus; J. W. Shank, Rogersville; J. Edwards, Columbus; A. C. Gaudy, Rogersville; L. P. Diehl, Lewisville; G. W. Vicks, Wapakoneta; J. W. Weber, Lewisville; J. J. Osborn, Cadis; J. B. Dysart,

Reynoldsburch; J. W. Luckey, Lee; J. S. Hedrick, Van Wert; R. F. Brown, Tiffin; E. R. Longstreth, Deaverstown; D. G. Snodgrass, Hartstown, Pa.; B. F. Hall, Harrisburg; A. B. Lathrop, Berkley; Frank Thompson, Ada; W. E. Johnson, Ogle, Pa.; Frank Bailey, Columbus; I. N. Bowman, Upper Sandusky; H. V. Brown, Portland, Ind.; A. La Rue, Tiffin; C. C. Hays, Williamsport; E. C. Logsdon, Zanesville; J. C. Modrack, Columbus; C. M. VanDyke, Watkins, N. Y.; W. P. Kennedy, Pleasant Mount, Pa.; A. C. Fruth, Osceola; T. W. Le Crone, Columbus; J. W. Fibbe, Cincinnati; M. B. Davis, Ringgold; Henry L. Salthouse, Rosamond, Ill.

PRIZES: The Faculty prize of \$50 for the best thesis was awarded to Dr. J. W. Lilly, of Circleville, with honorable mention of Dr. H. L. Salthouse, of Rosamond, Ill. Drs. D. L. Kistler, of Lancaster, and I. N. Bowman, of Upper Sandusky, received the prize of \$25 for the best report of Prof. Loving's Clinics. Dr. E. C. Logsdon, of Zanesville, received the gold medal offered by Prof. Gilliam for the highest grade in Physiology. The five following gentlemen received honorable mention for excellence in examinations:

Ezra R. Longstreth, Deaverstown; W. E. Johnson, Ogle, Pa.; Frank Bailey, Columbus; C. M. Van Dyke, Watkins, N. Y.; H. L. Salthouse, Rosamond, Ill.

The reception was given by Prof. Fullerton. Prof. Loving was too sick to attend the exercises.

COLUMBUS MEDICAL COLLEGE.

The exercises of the seventh Annual Commencement of this College took place at Comstock's Opera House, Feb. 24th.

Rev. W. E. Moore, D. D., President of the Board of Trustees, presided.

The Faculty and Trustees occupied seats on the stage, while the graduates occupied front seats in the parquet.

The graduating class, in three sections, was called upon the stage by Prof. J. F. Baldwin, Secretary, and presented by Prof. D. N. Kinsman, the Dean, to the President of the Board, who conferred the degree.

Rev. C. H. Babcock, Rector of Trinity Church, was the orator of the evening, his theme being "The Divine Side of Human Avocations."

The Dean of the College delivered the charge to the class.

The following are the names of the graduates—numbering fifty-nine:

B. B. Ashbrook, Pataskala; W. I. Linn, Paint Valley; D. H. Kellar, Allentown, Pa.; J. J. Rockwell, Winesburg; W. H. Stokes, Knoxville; J. J. Plumer, Bonaparte, Iowa; Albert Humphreys, Wooster; W. H. Birchmore, Columbus; Jacob Lautenslager, Urbana; J. W. Hamer, Hooversville, Pa.; Wm. C. Waters, Otsego; J. A. Kackley, Mt. Zion; W. T. Sheadel, Collinsville, Pa.; J. A. Clinger, Lithopolis; M. Ashbrook, Cedar

Hill; O. B. Richards, Stuben, N. Y.; N. P. Davidson, Marysville; D. B. Brady, Ohio Pyle Falls, Pa.; B. W. Pratt, Johnstown; R. P. Comfort, Mc Brides, Mich.; J. F. Jewett, West Canaan; H. M. Taylor, Towanda, Pa.; Orrin J. Smith, Oberlin; H. F. Hoyt, El Paso, Mexico; H. G. Campbell, McArthur; Chas. Draper, Cumberland; J. F. Egan, Milledgeville; W. R. Hanna, Jackson; Edgar McDonald, Coshocton; M. J. Carey, Auburn, N. Y.; Isaac P. Owen, Urbana; F. M. Kirby, Lamartine; L. W. Keyes, Montague, Mich.; O. F. Sears, Waldo; C. F. Wilkin, Columbus; C. M. Comer, New Albany; P. W. Pheneger, Columbus; J. H. Gerhardt, West Jefferson; O. M. Willis, Marietta; C. F. Kirkpatrick, Decatur; J. M. Major, Martin's Ferry; William Shattuck, Ironton; F. C. Armstrong, Delaware; W. S. Philips, Jewett; W. T. Royce, Elmwood, Ill; T. M. Johnston, New Hagerstown; W. B. Harter, New Madison; W. W. Kinkad, Marietta; M. L. Shanks, Casetteeton, Dakota; R. C. Richey, Delaware; H. E. Ellsworth, Hudson; R. M. Gray, Olive Green; J. M. Kilgore, Wooster; Harry Crumley, Columbus; A. M. Dent, Weston, West Va.; W. H. Wickham, Poplar; H. Dickinson, Chappaqua, N. Y.; C. V. Martin, New York, N. Y.; B. A. Bonnheim, Columbus.

Prof Hamilton gave a reception to the class the evening before.

THE N. Y. STATE MEDICAL SOCIETY has just adopted a new Code of Ethics, which allows its members to consult with any "legally qualified practitioners of medicine."

At the meetings of all State Medical Societies, but particularly is this true of New York, *specialists* predominate, and there exists a widely diffused suspicion that specialists are very fond of consultation fees. The inference is plain.

But when the delegates reach St. Paul, next summer, they will undoubtedly find occasion to rejoice at the unpremeditated wisdom of the Committee which selected that northern spot for the meeting of the National Association.

DR. REUBEN A. VANCE, of Cincinnati, having accepted the chair of Operative and Clinical Surgery, in the Medical Department of Wooster University, has removed to Cleveland. His address is 393 Euclid Ave.

CORRECTION.—In the paper of Dr. E. B. (*not* A. B.) Pratt, in our last issue, page 338, first line, the Doctor is made to speak of the *importance* of calomel, when he said *impotence*.

NEW HOSPITAL.—Dr. W. B. Hawkes, of Columbus, has announced his intention to give to the Columbus Medical College the necessary ground for a hospital, and \$10,000 toward the erection of a building. The grounds are located on the west side (towards the Insane Asylum), a little over a mile from High street.

In the January issue of *THE JOURNAL* there appeared an article on the history, treatment, and recovery of a case of Phthisis Pulmonalis. The manuscript was neatly written, and the author was known to be a graduate of a respectable medical college. Not a word had ever been heard against his professional character, either at this office or by the Dean of the school at which he graduated. The article, while of no special value, was of fair quality, and was inserted. It now appears that the writer has habitually resorted to such unprofessional means of gaining practice as to have forfeited the esteem of practitioners near him, and to have rendered him ineligible to membership in his local medical society.

It is needless to add that had these facts been known the manuscript would have been at once rejected.

For a man not to belong to his local medical organization, may safely be regarded as presumptive evidence against his professional character. One of the provisions of the proposed new Constitution requires the secretary of each local society to furnish the State society, once a year, a full list of its membership. In this way it would be possible for each one to know, approximately, the names of all those in good standing, and to act accordingly. Not only this, but as this list would soon become, as it were, a Roll of Honor, no man, who values his own good name and the esteem of his fellows, could long afford to disregard his local organization.

Indeed, the chief difference that exists between the old constitution and new, is that while the former practically ignores, utterly, local societies, the latter makes them the corner stone, the very foundation of the State society; so that the State organization is large, prosperous, and powerful, only as its auxiliaries thus render it.

DIED.—Prof. Joseph Pancoast, *Emeritus* Professor of Anatomy in Jefferson Medical College, Philadelphia, died in that city March 7th, aged 77.

He was born in New Jersey, in 1805. Graduated from the Medical Department of the University of Pennsylvania in 1828. In 1838, he was elected Professor of Surgery at Jefferson, which position he held until 1847, when he took the chair of Anatomy in the same school. This latter chair he resigned in 1874, when he was made *Emeritus* Professor of the same.

NOTES AND COMMENTS.

A CODE OF ETHICS ADOPTED BY THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

THE RELATIONS OF PHYSICIANS TO EACH OTHER.

It is derogatory to the dignity and interests of the profession for physicians to resort to public advertisements, private cards, or handbills, inviting the

The utmost punctuality should be observed in the visits of physicians when they are to hold consultations, but as professional engagements may interfere or delay one of the parties, the physician who first arrives should wait for his associate a reasonable period, after which the consultation should be considered postponed to a new appointment. If it be the attending physician who is present, he will of course see the patient and prescribe, but if it be the consulting physician he should retire, except in an emergency, or when he has been called from a considerable distance, in which latter case he may examine the patient, and give his opinion in writing, and under seal, to be delivered to his associate.

THE RELATIONS OF PHYSICIANS TO EACH OTHER.

All practitioners of medicine, their wives, and their children while under paternal care, are entitled to the gratuitous services of any one or more of the faculty residing near them, whose assistance may be desired.

Gratuitous attendance cannot, however, be expected from physicians called from a distance, nor need it be deemed obligatory when opposed by both the circumstances and the preferences of the patient.

The affairs of life, the pursuit of health, and the various accidents and contingencies to which a medical man is peculiarly exposed, may require him temporarily to withdraw from his duties to his patients, and to request some of his professional brethren to officiate for him. Compliance with this request is an act of courtesy which should always be performed with the utmost consideration for the interests and character of the family physician, and when exercised for a short period, all the pecuniary obligations for such service should be awarded to him. But if a member of the profession neglect his business in quest of pleasure and amusement, he cannot be considered as entitled to the advantages of the frequent and long-continued exercise of this fraternal courtesy without awarding to the physician who officiates the fees arising from the discharge of his professional duties.

In obstetrical and important surgical cases, which give rise to unusual fatigue, anxiety, and responsibility, it is just that the fees accruing therefrom should be awarded to the physician who officiates.

Diversity of opinion and opposition of interest may, in the medical as in other professions, occasion controversy and even contention. Whenever such cases unfortunately occur, and cannot be immediately terminated, they should be referred to the arbitration of a sufficient number of physicians before appealing to a medical society or the law, for settlement.

If medical controversies are brought before the public in newspapers or pamphlets, by contending medical writers, and give rise to or contain assertions or insinuations injurious to the personal character or professional qualifications of the parties, the effect is to lower in the estimation of the public, not only the parties directly involved, but also the medical profession as a

attention of individuals affected with particular diseases, publicly offering advice and medicine to the poor without charge, or promising radical cures; or to publish cases or operations in the daily prints, or to suffer such publications to be made; or through the medium of reporters or interviewers, or otherwise, to permit their opinions on medical and surgical questions to appear in the newspapers; to invite laymen to be present at operations; to boast of cures and remedies; to adduce certificates of skill and success, or to perform other similar acts.

It is equally derogatory to professional character, and opposed to the interests of the profession, for a physician to hold a patent for any surgical instruments or medicine, or to prescribe a secret nostrum, whether the invention or discovery or exclusive property of himself or of others.

It is also reprehensible for physicians to give certificates attesting the efficacy of patented medical or surgical appliances, or of patented, copyrighted, or secret medicines, or of proprietary drugs, medicines, wines, mineral waters, health resorts, etc.

RULES GOVERNING CONSULTATIONS.

Members of the Medical Society of the State of New York, and of the medical societies in affiliation therewith, may meet in consultation legally qualified practitioners of medicine. Emergencies may occur in which all restrictions should, in the judgment of the practitioner, yield to the demands of humanity.

To promote the interests of the medical profession and of the sick, the following rules should be observed in conducting consultations:

The examination of the patient by the consulting physician should be made in the presence of the attending physician, and during such examination no discussion should take place, nor any remarks as to diagnosis or treatment be made. When the examination is completed, the physicians should retire to a room by themselves, and after a statement by the attending physician of the history of the case, and of his views of its diagnosis and treatment, each of the consulting physicians, beginning with the youngest, should deliver his opinion. If they arrive at an agreement, it will be the duty of the attending physician to announce the result to the patient, or to some responsible member of the family, and to carry out the plan of treatment agreed upon.

If in the consultation there is found to be an essential difference of opinion as to diagnosis or treatment, the case should be presented to the patient, or some responsible member of the family, as plainly and intelligently as possible, to make such choice or pursue such course as may be thought best.

In case of acute, dangerous, or obscure illness, the consulting physician should continue his visits at such intervals as may be deemed necessary by the patient or his friends, by him, or by the attending physician.

whole. Such publications should, therefore, be brought to the notice of the county societies having jurisdiction, and discipline inflicted, as the case may seem to require.

PRECAUTIONS AGAINST THE SPREADING OF SMALL-POX.

1. *Perfect isolation of the Sick.* In cities, or where a suitable hospital has been provided, this is best secured by removal of the sick. In country districts the end may be attained by allowing only nurses and attendants to visit the sick-room, and these to see no other persons during the continuance of their services as such, without having changed their clothes or subjecting themselves to thorough disinfection.

2. All persons exposed to the contagion should be *immediately revaccinated, even though the experiment may have been unsuccessfully tried only a short time previously.* Possibly the vaccination may have been imperfect, or the virus inert.

3. After recovery the patient should not be permitted to go out, or to communicate with other persons, until the crusts have fallen off, and his clothing has been renewed or disinfected.

4. After death the beds and bed-clothes, carpets, curtains, and other articles in the room should be destroyed, or disinfected by the method to be hereafter directed.

DISINFECTION OF THE ARTICLES ABOUT THE PATIENT.—Disinfect the sheets, towels, handkerchiefs, blankets, and other articles used about the patient, as soon as removed, by immersing them in a vessel or tub containing half a pound of sulphate of zinc, or half an ounce of chloride of zinc, or four ounces of the sulphate of zinc combined with two ounces of common salt to each gallon of boiling water. Boil for half an hour. The articles should be placed in the solution before being removed from the room. The discharges from the patient should be received in a vessel containing one of the above solutions, or a solution of sulphate of iron, in one quart of water. The bodies of the dead may be disinfected by washing them with the solution of zinc and salt of double strength, and wrapping them in a sheet saturated with the same solution, or the zinc and carbolic acid solution mentioned above. It is advised, also, to sprinkle the floor with a solution of carbolic acid (one ounce) and sulphate of zinc (six ounces) to one gallon of water. Neither the sulphate of zinc solutions nor that of the chloride of zinc will stain or injure ordinary articles of clothing.

THE DISINFECTION OF THE CLOTHING.—Clothing which will not admit of being boiled, and which is too valuable to destroy, may be sprinkled with one of the last-named solutions, or the latter may be applied by means of a sponge, the articles themselves being subsequently exposed to the open air.

Other clothing, as silks, furs, woolen goods, and the like, to which the above means are not applicable, should be suspended in the room during its disinfection by the method immediately to be explained, and afterward exposed to the open air. Furniture, pillows, mattresses, window-curtains, and carpets should at the same time be exposed to the process. It is advised that the carpets should be fumigated on the floor, and the mattresses ripped open for more thorough exposure.

DISINFECTION OF THE HOUSE OR INFECTED ROOM.—For this purpose sulphur is used. The rule is to take roll-sulphur broken into small pieces, place it on a metallic dish resting upon bricks set in a tub containing water, or upon supports laid across the tub, pour a little alcohol upon the sulphur, and ignite it. Then immediately leave the room. Let the doors and windows be tightly closed and kept so for half a day. Then ventilate the apartment for several hours. One pound of sulphur is advised for one thousand feet of cubic air-space. The furniture and paint about the room may be subsequently washed and the walls whitened.—*National Board of Health Bulletin*.

The next International Congress will be held in 1884 at Copenhagen.

Sir James Paget has been compelled to give up practice and go to the south of France for his health.

Madrid, Spain, has twenty-three medical journals.

A death from the local use of pyrogallic acid in general psoriasis (a ten per cent. ointment) is reported.

Dr. W. R. D. Blackwood in Philadelphia *Medical Times* recommends static electricity as a galactagogue. He passes the sparks through the breasts daily.

M. Berger advocates a method in skin-grafting of inducing vascularization of the flap before cutting it, by covering the skin with a mustard plaster or with warm poultices.

THE old established medical book house of Lindsay & Blakiston has changed its firm name, and will be known hereafter as P. Blakiston, Son & Co., 1012 Walnut street, Phila.

JAMES R. CHADWICK, of Boston, thinks that the operation for lacerated cervix, Freud's method for removal of the cancerous uterus, and Porro's operation, will soon disappear, like Simpson incision for dysmenorrhea, "down the back entry of Time."

The Cook County Hospital, Chicago, is to be placed in part under the professional control of homeopaths, and the other part under the care of the regular medical management.

Dr. Thos. Dwight, of Boston, brought suit on a promissory note, given as a fee for expert testimony before a court. The defence was that there was no legal consideration for the promise to pay; that a medical man is bound to testify to anything he may happen to know relative to a case in court, whether it is a matter of fact in the particular case or of general professional knowledge or opinion. The court, however, disallowed the defence and ruled that a physician is not bound to give his professional opinion for nothing in court any more than elsewhere.

PRESERVATION OF CADAVERS FOR ANATOMICAL PURPOSES.—Two pounds of muriatic acid added to sufficient zinc scraps to make a neutral solution will give enough chloride of zinc for preserving an ordinary size subject. The strong solution so obtained will measure about one and a half pints, and must be diluted with about four quarts of water, and then strained carefully, that no small fragments may remain to choke the arterioles during injection. The cost will not exceed ten or twelve cents.

Solution of arsenite of sodium is made by putting one pound of arsenious acid (cost varying from five to ten cents, according to quantity purchased,) into two parts of water, and adding slowly, while the mixture is boiling, about a pound of sal soda (costing one or two cents). The soda should be added with care, in small amounts, because it is desirable to add only sufficient to combine with the arsenic; as soon as the insoluble arsenic is dissolved it is evident that the whole has become arsenite of sodium. Any additional soda would only render the solution alkaline, which might be detrimental to the integrity of the coats of the vessels.

The zinc will keep a subject which is exposed to the air fit for dissection two or three months, when it will mummify and become too hard and dry for service. Arsenic in this climate will not keep the cadaver perfectly for more than a week or two, except in cold winter weather. In summer it is valueless for practical anatomical work.

These two solutions are preferable to glycerine, alcohol, Wickersheimer's fluid, chloral, etc., chiefly because of their cheapness. Wickersheimer's fluid is objectionable because of its offensive odor and its expensiveness.

When injecting the zinc solution, the first few syringefuls should be quite weak, because a strong solution hardens the small arteries, which are contracted after death, and therefore the preservative fluid does not reach the periphery of the cadaver; hence the skin and sub-cutaneous cellular tissues are imperfectly preserved. This will be shown in a few days by the puffing up of the integument by sub-cutaneous gas, and by the separation of the epidermis from the true skin.

JNO. B. ROBERTS, M. D., in *Phil. Med. Reporter*.

THE OHIO MEDICAL JOURNAL

Vol. 1.

APRIL, 1882.

No. 10.

COMMUNICATIONS.

DISLOCATIONS OF THE HIP.

BY REUBEN A. VANCE, M. D., CLEVELAND, O.

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Department of Wooster University.

In order to understand all the questions that have been raised in relation to this lesion, it is necessary that the anatomy of the hip be thoroughly studied. It will then be apparent that while the acetabulum is not equally strong at all points, yet its osseous wall and cartilaginous and fibrous rim are so adapted to each other that at those points where the greatest impacts are received and the most powerful pressures exercised, the excavation is deepest and the osseous and cartilaginous embankment the highest. The cotyloid notch, the weakest part of the acetabulum, is directly downwards and slightly backwards when the pelvis is in the position assumed during the erect posture, and is closed by the transverse ligament.

The same law prevails in the ligamentous structures of the hip that can be observed in the osseous and cartilaginous walls—where the greatest tension is habitually exercised there the ligaments are best developed. This principle is admirably illustrated in the capsular ligament. In this structure the fibres pass from the brim of the acetabulum to the neck of the femur, certain strands coming from the anterior inferior spinous process of the ilium, and a few from the anterior aspect of the ilio-pectineal eminence. From the pubic borders of the cotyloid notch an unbroken continuity of fibres can be traced upwards, backwards, and then downwards to the ischiatic border of that excavation. The fibres are thickest on the anterior aspect of the neck of the femur; those above and behind come next, while the weakest portion of the capsule is the part connecting the inferior aspect of the femoral neck with the transverse ligament.

Another circumstance should be taken into consideration before any conclusions are drawn from these facts: are there any structures in the neighborhood that tend to deflect the direction of force from this weak point? This question receives an affirmative answer so soon as attention is drawn to the situation and offices of the powerful adductor muscles. Although the part of the capsule continuous with the transverse ligament covering the cotyloid notch is the weakest portion of that structure, yet the adductor muscles so protect it that luxation at this point is one of the rarer forms of dislocation of the hip. A luxation here can only occur during abduction, and weak as is this portion of the capsule, the adductor muscles by preventing that movement keep the head of the femur from impinging on the under part of the capsular ligament. When abduction does occur, the head may penetrate its ligamentous investments just without the transverse ligament—a condition spoken of in another part of this paper. This fact is demonstrated by the anatomy of the joint and surrounding parts: if the head of the femur be brought in contact with the capsule at any point, and sufficient force applied, a dislocation may result.

The careful study of clinical phenomena long since led me to believe what the examination of specimens has recently demonstrated to be a fact, namely, that not only may you have a dislocation at any point, as anatomy teaches, but that, in point of fact, you do have the head of the femur forcing its way through the capsule at the point it chanced to occupy when sufficient force is applied. The force that sends the head of the femur through the capsule, however, simply carries the articular extremity out of its socket, and in the majority of cases does not tear away the part of the capsule opposite the opening. If the circle of the acetabular brim be divided into 360 degrees, it could be said truthfully that dislocations occur at every degree. The symptomatic phenomena characteristic of dislocations—the flexion, inversion or eversion, shortening or lengthening, abduction or adduction, etc.—are mainly due to the portion of the capsular ligament which has not been ruptured by the force that dislocated the femur. The capsule gives way at the point where the head impinges at the critical moment; in the majority of cases there is but a simple slit in the capsule, or at most a straight button-hole opening conjoined with rupture of a few fibres at the acetabulum, giving to the rupture of the capsular ligament a “T” shape. As this opening will but rarely occur in exactly the same place in any two instances, the symptoms developed by the traction exercised on the limb by the untorn portion of the capsule will seldom be exactly the same in any two cases. Therefore what are denominated “classical,” or “regular,” dislocations, are but typical illustrations of the more commonly recurring forms of this lesion.

In order to understand the measures necessary for reducing a dislocation,

it must be borne in mind that certain movements of the lower extremity are associated. Thus, when abduction occurs, this movement is naturally accompanied by eversion; adduction, by inversion, etc. A man falling from an elevated point to the earth flexes his legs upon his thighs, his thighs upon his body, and adducts his knees; that posture is instinctively assumed in which the greatest amount of force can be received by the feet with least damage to the organism. Should the force be greater than can be disposed of without harm, a dislocation may be produced. (1.) If the thigh be extended and strongly adducted, the head of the femur passes directly upwards through the top of the capsule. It may now assume one of three positions: (a) it may remain with the head hanging over the acetabulum; (b) the head may advance and the great trochanter recede; or (c) the head may recede and the great trochanter advance. The dislocating force perforates the capsule, and carries the head upon the brim of the acetabulum; the neck is surrounded by the borders of the rent in the capsule and held firmly by the anterior portion of that structure—the subsequent movements are accidental, and may, or may not, occur. If the thigh be flexed and adducted at the moment force is applied, the position of the head will vary with the amount of flexion and inward rotation. As before, so here, the neck will be held by the untorn portion of the capsular ligament, and the deformity that results will be mainly due to the tension it exercises. (2.) Should the force be applied while the limb is abducted, a downward dislocation occurs. (3.) Should the thigh be hyper-extended, adducted and rotated outwards, a dislocating force will carry the head of the femur forward upon the pubes. (4.) Should it be flexed upon the body, adducted and rotated inward, it will emerge directly opposite the tuberosity of the ischium and may rest on that prominence. Through injudicious manipulation of the dislocated extremity, the head of the femur, when dislocated directly downwards, may be carried towards the pubes or the ischium, and in certain cases where force is used, it may even recede behind the ischium and pass without the internal obturator tendon. Between these typical and well defined dislocations there are innumerable intermediate forms insensibly shading off into each other.

If the surgeon desires to demonstrate the influence of the capsular ligament upon different dislocations, he should take a subject and on one side remove all the tissues about the hip-joint except the capsular ligament, and on the other make a subcutaneous section of the capsule, cutting as little as possible of the adjacent structures. In the former case, by making longitudinal slits in the capsular ligament, he can produce any form of dislocation he pleases, and study the essential symptoms—lengthening or shortening, adduction or abduction, flexion, inversion, etc.—thus developed at his leisure. In the latter case, the limb can be readily put in and out of joint,

but the symptoms marking the different forms of luxation of the head of the femur are wanting and cannot be produced.

The principles which should govern the surgeon in his efforts at reduction can be concisely formulated as follows:

1. Place the limb in the position it occupied at the moment it forced its way through the capsule, thus carrying the head of the femur opposite the opening through which it emerged.
2. Manipulate the limb in such a manner as to relax the untorn portion of the capsular ligament.
3. Draw or push, elevate or depress, the head of the femur in a way to carry it over the brim of the acetabulum, exercising this force by proper movements of the extremity directed by the grasp the surgeon has on the leg, at the same time so moving the limb as to keep constantly relaxed the untorn portion of the capsular ligament.

How are these principles to be applied? For example, how can the surgeon determine the position the limb occupied at the moment the head of the femur forced its way through the capsular ligament? A knowledge of anatomy and acquaintance with the mechanism of hip-joint luxations, together with the history of the given case and careful study of the signs and symptoms presented by it, will almost invariably supply all needed information. The axis of the femur will direct the surgeon to the immediate region of the opening in the capsular ligament; the position of the head of the bone or the situation of the great trochanter, will reveal the extent and character of any movement of the articular extremity that occurs subsequently. In dislocations upwards, or upwards and backwards, or backwards and downwards, but little difficulty will be had in determining this point in the case. The same is true of downward dislocations. Dislocation on the pubes, or on the tuberosity of the ischium, owing to the part borne by inward and outward rotation in their mechanism, must be carefully studied before any attempt is made to reduce them, in order to distinguish between these lesions and the changed position of the head of the femur in certain downward luxations. The application of these principles in detail can be best illustrated by describing their application to a few typical cases. In describing symptoms the patient is presumed to stand erect; in detailing manipulations for reduction, to be recumbent.

In one case, where the patient's left thigh was dislocated by a blow from a runaway horse, the femur was forcibly adducted whilst extended. The head of the bone could be felt behind the spinous processes of the ilium and upon rotating the foot outwards—consequently, the thigh inwards—at the same time flexing the leg on the thigh and adducting the knee, the round articular extremity receded and the trochanter advanced. When this movement was continued until firm resistance was experienced, the head disappeared and

the great trochanter occupied a position just behind the place first assumed by the head. In a word, the neck of the femur was in the grasp of the ruptured capsular ligament, and the head and great trochanter were opposite extremities of a lever, the center of revolution of which was at the opening in the capsule through which the head had emerged. The following maneuvers were adopted for the reduction of the luxation: Standing on the right (uninjured) side of the patient, I grasped his left ankle with my right hand and his left leg just below the knee on its posterior surface with my left hand; then flexing the leg upon the thigh, I adducted the latter slightly, at the same time rotating the femur (by acting on the left leg with my right hand) until the great trochanter was directed outwards and the head of the femur inwards; next the movement of adduction of the thigh was resumed, at the same time making traction in the line of the axis of the femur with my left hand, while short but rapid from-side-to-side movements were communicated to the left ankle with my right hand. There was a progressive advance of the head of the femur from the point it occupied after being directed inwards until it reached the margin of the acetabulum; here it halted for a few seconds, and then with a sudden forcible impulse it snapped into its socket.

When the thigh is flexed as well as adducted at the moment of luxation, the head of the femur may occupy any point between the situation just described and the ischiatic notch. Generally the head of the bone is not far from the opening in the capsule through which it emerged—usually a little above it. In order to return the more or less shortened, adducted, flexed, and inverted limb to its socket, the following manipulations are necessary: Let the surgeon stand on the uninjured side and grasp the ankle and leg as before, flexing the leg on the thigh and rotating the femur a trifle inwards, and then execute simultaneously the triple movement of adduction, firm traction in the axis of the femur and flexion of the thigh, at the same time communicating to the ankle the vibratory movements above described. In order to appreciate the movements thus given the dislocated part, we must picture to ourselves the situation of the head of the femur and its relations to the acetabulum. At the moment of dislocation the leg was flexed on the thigh, the thigh on the body, and the knee adducted. But the head of the femur does not remain opposite the point at which it emerged—almost invariably the femur is rotated outwards, abducted and extended as far as the untorn portion of the capsule will permit. The flexion of the leg on the thigh relaxes the hamstring muscles, the inward rotation of the femur carries the long axis of the head and neck of that bone in the direction of the long axis of the opening in the capsule, while the combined movements of adduction, traction upon and flexion of the thigh, relax the tense untorn portion of the capsule and carry the head of the bone upon the edge of the

acetabulum and against the slit in the capsular ligament, but apparently find further progress impossible from the size of the opening in the capsule; if now the surgeon communicates to the ankle slight to-and-fro movements, almost instantly such an amount of reflex contraction is excited in the adductor muscles of the thigh as suffices to forcibly draw the head of the femur into the acetabulum.

Should the dislocation be downward and forward upon the thyroid foramen, a very striking deformity ensues: the limb is lengthened, abducted, advanced, inverted, and flexed. To effect reduction in such a case the leg must be semi-flexed on the thigh, the thigh abducted, slightly flexed on the abdomen, and strongly drawn upon in the line of its long axis. Should the head of the femur ascend to the rim of the acetabulum and there meet with resistance, it should be held in this situation for a moment while slight to-and-fro movements are communicated to the ankle—this maneuver excites sufficient reflex muscular contraction to draw the bone into its socket. In reducing this luxation the surgeon stands on the injured side, but grasps the leg precisely as before.

The foregoing are the ordinary varieties of dislocation of the femur at the hip-joint. If inward or outward rotation be combined with forced adduction the head of the femur will be carried backwards on the ischium or forwards on the pubes. The same principles govern their reduction that apply to the foregoing varieties: in any case of luxation at the hip the surgeon should endeavor, by relaxing the untorn portion of the capsular ligament and carrying the head of the bone to the orifice through which it emerged, to effect a reduction.

It should never be forgotten that in dislocations upon the thyroid foramen or tuberosity of the ischium, careless or ignorant manipulation may carry the head of the femur beyond the tuberosity of the ischium and without the tendon of the internal obturator muscle. Here is a dislocation closely resembling one form of the upward and backward variety that by certain writers is claimed to be by no means infrequent. In one case under my own observation, the leg was flexed on the thigh, the thigh adducted, flexed and drawn across the middle of the right thigh, and so rotated inward that the sole of the foot pointed upwards and forwards. The accident occurred in jumping off the street cars—the left leg was flexed and forcibly adducted. A man who came to the patient's assistance, finding the thigh directed forwards and the leg flexed on the thigh and projecting from it laterally, caught the knee and ankle and gave the leg a twist which resulted in the above described condition. Reduction was effected in this way: Standing on the uninjured side I grasped the left leg in the usual manner, the thigh was forcibly but slowly adducted at the same time that the femur was rotated outward, drawn upon in the line of its long axis and flexed on the abdomen.

These movements carried the head of the femur to the brim of the acetabulum, the usual to-and-fro motion was given the ankle, and at once the bone returned to its socket.

The opening in the capsular ligament being of the slit-like nature already described, any one taking the trouble to study this question upon proper preparations can convince himself not only as to what it is that holds the limb in the peculiar position it occupies in each of the luxations, and of the efficacy of the various steps described in reducing these dislocations upon the principles just portrayed, but he can also satisfy himself of the unphilosophical character of the special manipulations described by Dr. W. W. Reid.

In the N. Y. *Journal of Medicine* for July, 1855, that gentleman writes as follows :

“From the experiments and observations which I had made, I had deduced the following propositions and rule :

“1. The chief impediment in the reduction of dislocations is the indirect action of muscles put upon the stretch, by the malposition of the dislocated bone, and not in the contraction of muscles that are shortened (as heretofore taught).

“2. That muscles are capable of so little extension beyond their normal length, without hazard of rupture, that no attempt to stretch them further in order to reduce a dislocation, if it can possibly be avoided, should be made.

“3. The general rule for reducing dislocations should be that the limb or bone should be carried, flexed, or drawn in that direction which will relax the distended muscles.

“These general rules will apply to all luxations, but especially to the several varieties that pertain to the hip-joint.”

The second paragraph after the foregoing reads thus :

“The method of manipulation as employed and described by me in the article published in the *Buffalo Medical Journal* for August, 1851, and again in the ‘Proceedings of the State Medical Society,’ February, 1852, was as follows : ‘Let the operator stand or kneel on the injured side, seize the ankle with one hand, the knee with the other, then flex the leg on the thigh, next strongly adduct it, carrying it over the sound one, and at the same time upward over the pelvis, by a kind of semi-circular sweep, as high as the umbilicus ; then abduct the knee gently, turn the toes outwards, and carry the foot across the opposite and sound limb, making gentle oscillations of the thigh, when the head of the bone will slip into its socket.’”

In dislocations upon the dorsum ilii, Reid’s method consists in “flexing the leg upon the thigh, carrying the thigh over the sound one upwards over the pelvis as high as the umbilicus, and then abducting and rotating it.”—

HAMILTON. Notice the fatal defect: If the dislocation be directly upwards any "carrying the thigh over the sound one upwards over the pelvis as high as the umbilicus" necessarily fails to reduce the dislocation from the fact that this manipulation does not relax the untorn portion of the capsular ligament, and does not carry the head of the bone to the opening through which it emerged. If the dislocation is upward and backward these maneuvers are, if anything, even more palpably inefficient and for the same reasons. But to the other movements communicated to the injured extremity, more forcible objection can be made; they are not only inefficient, but may prove dangerous. Picture the situation of the parts: The preceding manipulations move the head of the bone in its abnormal situation, and do not carry it to the opening in the capsule and so relax the tense structures as to permit reduction; these final movements of abduction and rotation simply exert powerful traction on the untorn portion of the capsule, and unless (as very frequently happens) a compensatory movement of the spine occurs, thus protecting the capsule, certain fibres of the latter must be lacerated. Many surgeons have reduced dislocations of the hip who thought they were using Reid's method, yet a careful study of the principles involved will show that their success was due to other movements than the restricted series described by Dr. W. W. Reid, of Rochester. Nevertheless, although that surgeon failed to grasp all the details of Manipulation as a Method for the Reduction of Dislocations, yet modern surgery owes him a debt of gratitude for the contribution he made to science in directing attention to this subject that can be but imperfectly paid by connecting his name with the reduction of luxations by manipulation.

393 Euclid Avenue, March, 1882.

A NEW DILATOR.

BY HENRY G. LANDIS, M. D., COLUMBUS, OHIO.

Prof. of Obstetrics Starling Medical College.

The uterine dilator which bears the name of Atlee is a very useful instrument in a limited class of cases. When there is stenosis of the cervical canal at any point it will pass readily, and has great dilating power. But



R. Jones & Son, Columbus, O.

after dilatation has proceeded to a certain point its blades are so narrow that the uterine tissue looks, to say the least, as if it were in danger of being cut

by them. Also, only a small number of fibers are directly pressed upon. There are, for the same reason, many cases where a narrow-bladed dilator is inefficient; as here there is a spasm of the cervical tissues, or where dilatation is employed therapeutically, as in areolar hyperplasia, and where it is desirable to dilate before making intra-uterine applications. To meet these indications, I have had made an instrument identical with Atlee's dilator, except in having larger blades. The figure shows the caliber of the instrument and also that the point has been left small that it may enter the os internum. After nearly daily use for several months, I find it indispensable. It is useful, also, as a urethral dilator; also as an applicator, the blades being slightly closed after its introduction and the fluid thus expressed from the cotton.

VITAL STATISTICS.*

BY M. JEWETT, M. D., AKRON, OHIO.

Read before the N. E. O. M. A.

The subject of Vital Statistics is little understood or appreciated by our State or Nation. To the Medical Fraternity it is of the greatest interest to know whether the advancement in Medical Science has been accompanied by an improvement of man physically and a prolongation of the period of human life; to know whether the maladies that afflict our race are loosening their grasp, and coming more and more under the control of medical skill. These are subjects to us and the community at large of the greatest importance.

These important inquiries are only answered by a well regulated system of vital and social statistics. It is only a short time since any attempt has been made to organize such a system in this country. It is only about a decade since our State has made a beginning on this subject. Our neighbor, Michigan, made a start, but her last reports ended in 1874. Many States are making beginnings which may eventuate in something reliable in the near future. Most of the New England States have been more successful and kept fair reports for several years. Massachusetts is the most reliable, having commenced about 40 years ago. By adequate rewards and severe penalties, she is able now to present as perfect a system of vital statistics as any European country. The proper officer receives fifty cents for recording, indexing, etc., a birth, twenty-five cents each for marriages and deaths, and penalties range from \$5 to \$100 for non-compliance with statutory enactments. In our State, no rewards are given and no penalties inflicted for

*Recommended by Publication Committee of the N. E. O. M. A.

failure in compliance with what little legislation we have on the subject; a subject which will in the near future be regarded as indispensable in every well regulated, civilized community. At the commencement of an investigation, so far as our State is concerned, we are met with the unreliability of the records. As an example of the uncertainty of our reports, the deaths as reported by our Secretary of State are put down at 23,446; State population 3,178,000, which would make a generation last 120 years. The births are also far from accuracy. They are put down at 62,422. Hamilton County reports only 736 and 2,969 deaths. The State of Massachusetts, with a population of a little more than half that of Ohio, reports the deaths of 35,292, 7,846 more than Ohio. The births in Massachusetts were 44,217, or but 18,000 less than Ohio, which has nearly double her population. The number of deaths reported by our Secretary of State, under one year, is 4,600; under five years, 8,500; should we add fifty per cent. to this it would make under one year, 6,900; under five, 12,750. But this with fifty per cent. added, is far too low. Massachusetts, with a population of 1,783,000, reports 7,190 deaths under one year, and 12,213 under five years. If we could be sure of our reports being correct with fifty per cent. added, infant life would have a greater value in Ohio than in any known portion of our globe. But we have no reason to suppose we have a less death rate in childhood than Massachusetts, as the general death rate in Massachusetts is less than twenty per 1,000, making a generation last about fifty years.

Marriages in our State were far more accurately reported, 27,805; in Massachusetts, 15,538. Allowing the same ratio to our population, this is nearly accurate. From the best calculation I can give from State reports, compared with other States and the Federal census, we may safely set down the rates for 1880 at twenty-five births per 1,000 population; marriages ten per 1,000, and deaths at twenty per 1,000. This would indicate one birth to every forty persons; one married in each 100, and one death in each fifty. This would nearly correspond with Massachusetts. There is no doubt of a large increase in the value of infant life in this country and Europe, or at least in England. Dr. Farr says, as quoted by Dr. Kinsman in the *Ohio Medical Recorder*, "The proportion of children raised has doubled in the last hundred years. In London, the proportion that died under five years was from 1730 to 1749, seventy-four and one-half per cent.; from 1770 to 1789, fifty-one and one-half; from 1851 to 1870, twenty-nine and eight-tenths."

Many of the nations of Europe have maintained a perfect system of vital statistics for hundreds of years. From these, we are assured of the incorrectness of the common idea that every generation is growing shorter. The opposite is clearly proved by the records. In Berlin, 100 years ago a generation passed off in twenty-eight years, now thirty-eight; in Selicia, 140 years

ago, thirty-eight years, now forty; in Sweden, 140 years ago, thirty-four, now forty-eight years; in Dublin in the 17th century, twenty-two years, in the first half of the 19th century, thirty-eight years. In England and Wales, in the first forty years of the 18th century, there were 340 deaths for every 10,000 of population; from 1840 to 1860 (twenty years) it was reduced to 270 in the same number. In the former, a generation lasted thirty years; in this century forty-eight years. From the London *Lancet* of 1880, we learn that towns in England containing more than half the population, the death rate ranged from seventeen to twenty-eight per 1,000 of the population, the highest being Liverpool, which reported the last figure. The death rate in Scotland differed little from England. In Dublin, for a large part of the year it reached thirty-nine per 1,000, a large increase on the usual rate.

The increase of births in England and Wales from 1840 to 1850 was from 512,000 in 1841 to 593,000 in 1850, with an annual average of 14,000 more males than females. Deaths in 1841 were 343,000 to 368,000 in 1850. The highest mortality was in 1859, 440,000. This was owing mainly to a cholera visitation.

Proportion of deaths to whole population in England :

In the year 1730	one in 31	In the year 1780	one in 41 $\frac{3}{4}$
“ “ 1740	“ “ 35	“ “ 1790	“ “ 45
“ “ 1750	“ “ 40	“ “ 1795	“ “ 47
“ “ 1761.	“ “ 41	“ “ 1880	“ “ 47 $\frac{3}{4}$
“ “ 1770	“ “ 41		

Switzerland has kept the most perfect and longest records of any nation in Europe, nearly 400 years. In the 16th century, a generation passed off in twenty-two years; in the 17th century in twenty-six years; in the 18th century in thirty-four years; from 1800 to 1833, at the rate of forty-four years. In Boston, Mass., from 1728 to 1752, one in twenty-two died; from 1846 to 1865, one in forty-two. The death rate in 1867 was one in forty-three and one-half. This is the most unhealthy city in New England.

In the city of New York, that was formerly supposed to present an unfavorable death rate, the records show since the organization of the Metropolitan Board of Health, and the introduction of the Croton water the mortality one in forty-four. Philadelphia, with an abundance of pure water, wide, clean streets and perfect sanitary condition, shows a mortality of one in fifty-nine and three-fourths of its population. It is presumed that no city as large shows so favorable a death rate. Chicago is represented by her Board of Health as presenting a death rate for 1881 of twenty-five and one-half per 1,000, making a generation a little less than forty years; I presume better than New York for 1881, which has been an unusually unhealthy year.

In comparing the statistics of our own country with European countries, we gain very much in the death rate, but fall far below all but France and

Belgium in the birth rate. Taking the statistics of Massachusetts as applicable to the whole nation, the following table will show comparative birth and death rate and increase of population in the following nations:

Births in 1,000 1860-1870.	Death rate.	Excess of births.
Massachusetts.....26.2	19.7	6.5
England and Wales.....35.4	22	13.4
Denmark31.2	19.7	11.5
Sweden.....31.2	19.2	12
Austria.....39.9	30.8	9.1
Persia.....36.6	26.5	12.1
Netherlands.....35.4	24.6	2.4
France.....16	23.6	
Hungary.....42.6	38.9	3.1
Switzerland.....31.6	24	7.0
Italy.....37.2	29.9	7.3
Spain.....37.2	29.7	7.9
German Empire.....39.8	27	12.8

The death rate, with the exception of Denmark and Sweden, is greater than our own. The birth rate, with the exception of France, is much higher than in this country. While we have a much lower death rate, this is more than compensated by their higher birth rate. While in Massachusetts the birth rate is six and one-half above the death rate, in England it is thirteen and four-tenths; in Denmark it is 11; Austria, 9; the German Empire, twelve and eight-tenths. It may not be just to consider the State of Massachusetts as a fair representative of the United States as to the birth rate. The descendants of the Pilgrims signally fail in obedience to the first commandment. It may safely be stated that more than one-half the births in that State are of foreign parentage, though the native-born are largely in the majority. With the introduction of luxury and the so-called refinements of civilization comes the foolish idea that to bear children is unbecoming the conjugal relation. If not directly this is indirectly connected with my subject, and there is nothing so well calculated to excite apprehension as the rapid lessening of the birth rate in many sections of our country. To prevent this child-bearing the public press has been prostituted and a multitude of nostrums spread before the community to counteract a law as plainly revealed in nature to him to whom it was originally given, to increase and multiply. The honorable press of the nation is not chargeable with this crime now. Infanticide is constantly increasing. Should the feeling against the exercise of this, the highest and noblest function possessed by man, continue to increase as it has during the past fifty years, the decadence of our nation will be fairly inaugurated and our decennial reports will testify to our decrease and ultimate downfall as a nation. The statistics of France fifteen

years ago, showed an increase of population. The birth rate then though low did not fall below its death rate, but the records testify that France in 1880 shows a death rate considerably in advance of its birth rate. In 1866 her birth rate was a little above one-fourth per cent. higher than her death rate.

Now, as I have above stated, how long she will be able to hold her position as a first power in Europe, the school boy can answer. It is singular that our ideas on this subject should be only American and French. In the British Empire, from her who fills with so much grace and dignity the throne, to the lowest mud-cabin peasant, children are considered a blessing and to bear them an honor.

One of the benefits of vital statistics, perhaps the most valuable, is to learn the result of any great radical change in treatment of any disease. There is no one disease so wide-spread and so fatal as consumption, and for its treatment there is no one that has met with more of a radical change. If the statistics show a diminishing of the death rate by this disease, it will be hailed with delight by every practitioner.

In London in the 17th century and first half of the 18th century, seventeen per cent. of all the deaths was from consumption. It is now about ten per cent in London and twelve per cent. in the balance of England and Wales. In Massachusetts the tables show gradual decrease of the disease; in 1853 the deaths were 427 for each 100,000 of the population; the records show a general decrease to 340 for that number in 1867 with a still further reduction in 1880.

The Secretary of State of Michigan says the proportion of deaths from consumption in that State has decreased annually since 1869. Williams, author of the *Principles of Medicine*, who has done more to introduce cod liver oil and the sustaining treatment than any other man, says that ten per cent. of cases that formerly terminated fatally, are now cured, and in those who ultimately yield to the disease life is prolonged for many months and frequently for years. Any one with an experience of forty years practice will say this is not exaggerated. The census of the United States for 1880 shows that fourteen and two-tenths per cent. of all deaths are from consumption. In Ohio it was thirteen per cent.

It is only by a long continued record of deaths that the underlying causes can be elucidated and the means pointed out for their removal. As an instance, and as showing the certainty of an opinion entertained by the profession as to the common means of propagation, take typhoid fever, which has been supposed to be propagated from the excrement of those afflicted with the disease. This opinion is much strengthened by the statistics of our State. The mortality is least in our most thickly settled districts, where we might with propriety expect to find the greatest. Hamilton county gives

6-10 per 10,000 inhabitants; Cuyahoga county, 2 6-10; Franklin county, 2 8-10; Lucas county, 3; Montgomery, 2 4-10; while the average of the State is 3.5 in every 10,000. The causes that render our cities more exempt from this fever than the rural districts, evidently depend mainly upon the source of their potable water and their sewerage. Water of our cities instead of being, as is frequently the case in the country, drawn from a well receiving the drainage of a cess-pool, barn-yard, or the refuse of a kitchen, is taken from some uncontaminated source, while the excrement, deposited where its noxious particles are not inhaled or used to contaminate the drinking water, is carried to a safe distance by adequate sewerage. Our cities, properly sewered and well supplied with pure water, ought to be and are as healthy as any part of the country. They were formerly great store-houses of disease and death. For want of drainage the earth was saturated with the excrement of man and beast. The air was contaminated with the exhalations of decomposing animal and vegetable matter, which became sources of disease so virulent as to spread over whole nations and frequently sweep off half the population. Epidemics of the plague, black death, and other pestilential diseases, once the terror of Europe, have been shorn of their violence or ceased altogether. Smallpox, once the scourge of the world, from which millions annually fell victims, has been disarmed of its violence and made a disease of secondary importance.

From the records of Basle, Switzerland, a city having an existence of several centuries, we have an account of epidemics that have visited it for some hundreds of years. Two epidemics in the last fifty years, one in '49—cholera, 205 died; one, typhus fever, in 1855, 400 died; one in 1608, 4,049; in 1685, 4,000 deaths. About the middle of the 14th century the last great visitation of the plague, or black death, as it was generally called, carried off from Basle's 42,000 population, 14,000. Its visit in Switzerland was, compared with many parts of Europe, very mild. In Venice three-fourths of the population fell victims to it, and one-half the population of Italy were slain by it. More than a million fell in Germany, where it was lightest in Europe, and it is said only one-tenth of the inhabitants of England remained—doubtless much exaggerated. In all Europe it was estimated that nearly half the population fell victims to this terrible scourge, which was equally malignant in Asia.

What are the agencies that have contributed to the rapid increase of the population of Europe and this continent for the last 100 years? Europe has peopled the new world with millions of her children, has founded future empires in Africa and Australia, and her people now control half the dark races of the globe, while she is rapidly increasing at home. What has so lessened the death rate as to more than double the Caucasian race in the last 100 years? The answer to this inquiry would be foreign to the subject

assigned me. But it may be summarily stated as arising from increase of knowledge, advancing civilization, increase and more general diffusion of wealth, acquisition of human rights, and a more rational use of medicinal and mechanical agencies for the relief of anatomical and physiological abnormal action. An important factor remains to be noted in the discovery of the medicinal virtues of the cinchona. The knowledge of its febrifuge properties has enabled the white man with comparative safety to penetrate the jungles of Asia and Africa, and has rendered capable of occupation large portions of our own and other fever stricken portions of the world. We may I think safely put to its credit four of the fifteen years of life added to the present generation over the generations that have preceded us.

*DISEASES OF NUTRITION.**

BY GEO. B. COCK, M. D., CANTON, O.

“*Mens Sana in Corpore Sano.*”—This is an old and trite observation, which, if rendered into modern Anglo-American, would read thus: A healthy body is necessary to a good mental and intellectual vigor. Not only is this true, but we may with great propriety and truthfulness assert that a man is not wholly himself, does not attain to all his possibilities in physical and intellectual vigor and manhood, when he is illy nourished or poorly fed. Something cannot be made from nothing, nor can good structure be built from inferior material. When the secernents and emunctories are in good healthy functional activity, digestion well performed, the blood-making process unembarrassed by morbid elements, and pure, healthy, warm blood is coursing through every artery, capillary and tissue, carrying the best elements to every part, then is the brain active, the mind clear, the eye bright, the muscles firm, the body buoyant, and all its functions, physical and intellectual, performed with ease and strength. Under such conditions of perfect nutrition and assimilation man rises to his highest attainments and attributes, while conversely, under a lowered nutrition and consequent feeble vitality and mal-assimilation, he sinks to the lowest depths of human frailty. Undoubtedly very much, if not all, of imbecility, feeble state of mind, obliquities of moral sense, which exercise a predisposing influence to criminality, have their origin in these conditions of mal- and non-nutrition. Not only is this true, but the protean forms of disease, particularly the chronic varieties, such as paralysis, epilepsy, dyspepsia, scrofula, catarrhal states, tumors, morbid deposits, destructions of tissue, carcinoma, phthisis, amyloid and fatty degeneration, neurasthenia, morbid nervous states, neuralgia,

* Recommended by Publication Committee.

hysteria, rheumatism, Bright's disease, womb ills and head ills, pains of the back and of the abdomen, and the thousand and one other ills of poor suffering humanity, are all the results of such causes obtaining and continuing generation after generation.

Do not understand me as meaning that these diseases are *per se* hereditary. But the conditions of habit and wrong-feeding transmitted from parent to child and continued, will at some time more or less remote produce their necessary results, as surely as effect succeeds cause. There are certain diseases, the zymotic and malarial, for instance, which are caused by certain specific germs or spores, which have their origin outside of the body, but even these are modified or rendered harmless, when the system is well fortified by proper nutrition. Now if the conditions of nutrition, or non-nutrition of the body play so important a part in the freedom from and the liability to diseases, the question arises, what are the proper foods by the use of which man may attain the highest nutrition and secure immunity from disease? In answer to this inquiry I may quote from a journal* received since beginning this paper: "In taking a comprehensive view of the foods known to civilized man, it may be positively stated that such foods can be classified into two large groups; and there are no foods which do not properly belong to one or the other of these two great classes. These groups are the nitrogenized and the non-nitrogenized, or the foods which contain nitrogen as an element of their composition, and those in which no nitrogen is found. The non-nitrogenized group of foods consists of those which contain sugar, starch, or fat. The nitrogenized group are those which do not contain sugar, starch, or fat. Having learned these facts, it is proper to determine the relative value of the foods which make up these two great groups, viz., the relative value of nitrogenized and non-nitrogenized foods. We may assert as a well established fact that while the non-nitrogenized are almost solely effective, and intended for the purpose of maintaining the animal temperature, the nitrogenized foods are consumed in repairing the natural wear and tear of the true tissues of the body. While animal temperature may be maintained, in those who subsist on an exclusively nitrogenized diet, repair of tissue-waste cannot be effected in those who consume only the non-nitrogenized foods. That is, man can live and maintain a vigorous existence on an exclusively nitrogenized diet; while on a diet of non-nitrogenized food he is unable to maintain life; such a diet being fatal if persistently and exclusively adopted."

In an animal fed exclusively on fatty foods, the hairs on the body are actually infiltrated with oil, and yet in a well known period of time it is sure to die. With a saccharine diet the result is the same; and with a starch diet the fatal result is postponed, but is sure to occur. If these facts be applied

*American Medical Weekly.

to the study of the cereal foods, it will be found that the gluten, which is the nitrogenous element, is largely lost in their preparation, and only the starchy or non-nitrogenous element remains. Hence our flours are deprived of their nitrogenous elements, and do not supply the proper elements for the perfect nutrition of the body. But these non-nitrogenous foods are more largely produced and are cheaper in the markets than the nitrogenous. Hence people consume a far greater proportion of the non-nitrogenous; their systems fail for lack of nutrition; and in this we have a sufficient reason for the great increase in the prevalence of the large class of diseases which I have named. Nor is this the only reason. It is a well established fact that the non-nitrogenous foods are largely composed of carbon. In fact, carbon is by far the largest element in their composition. Oils, fats, sugars, starches; vegetables, and cereals largely composed of starch; fruits, largely composed of saccharine elements; and all fermented liquors, are largely carbonaceous or non-nitrogenous, and hence are not repairers of tissue waste. What part do they perform in vital activity? Are they supporters or destroyers of vital action? I answer they are the latter—destroyers. In that unseen world which the microscope reveals to us there are two large classes of animal and vegetable life, known as Bacteria. These are the carbon feeders and the nitrogen feeders. With the former, the carbon feeders, we are mostly concerned. These have their habitat, or appropriate environment, in the nitrogen elements and are the promoters of putrefaction.

To-day the world is full of chronic invalids. It is the exception to find a person of adult age who is not a sufferer from some malady, more or less obscure, which is indicative of some disorder, of nutrition and assimilation. You question them in regard to their habits of life, and you find, as a rule, they are consumers, in a large excess, of the carbonaceous food. Now the bacteria, the carbon feeders, are omnipresent. They swarm in the air we breathe, and penetrate all the channels of the system wherever the carbon elements are in excess, setting up their appropriate action, which is fermentation, and its consequent result the production of carbon gas which is always a paralyzer and a depressor of vital activity. And it is wonderful with what rapidity this is often attained, and with what fatal results it is often attended.

I need not trespass farther on your time in the elucidation of this subject, although I might pursue it to a much greater length. But taking this view, and in the light of the facts as herein set forth, what are the plain indications in regard to the treatment of disease? Manifestly to restore by means of the nitrogenous elements the tissue waste of the body; renewal of vitality through nutrition, or, as Dr. Chambers, of England, long ago expressed it, "*by renewal of the powers of life.*" I might cite numerous cases occurring within my observation and within my own practice which will serve as fitting illustrations.

In April, 1880, I was called to see a child of three years, with infantile paralysis. Both lower extremities from the knees downward were paralyzed, and showed arrest of development. In all other respects the child was large and seemed well nourished. The history of the case disclosed the fact that the child had been thoroughly drugged for a long period of time, but with no improvement. No attention had been given to the proper regulation of its dietary, by either the parents or medical attendant. I gave a plan of dietetics and advised strict adherence, and also gave a simple prescription to stimulate the biliary secretion. In a short time the child began to improve, and went on to complete recovery, although the dietary was carelessly adhered to. After the child began to walk it was observed by the parents that within a few hours after the ingestion of cake, pie or fruit, it would weaken in its extremities, would fall, and for a time be unable to walk.

At a former meeting of this Association I gave a brief verbal statement in regard to the removal of a large uterine fibroid in a comparatively brief period of time, by a strict compliance with what I conceived to be the essential hygienic and dietetic conditions.

Within the past few weeks I was called to attend a case of paralysis in a gentleman of sixty years. He had been in his usual good health up to the previous evening. On arising in the morning he fell prostrate, and found that his right arm and leg were paralyzed. On inquiry, I learned that for a number of weeks he had subsisted on an exclusively non-nitrogenized diet, and during the previous evening had eaten two good sized apples. I advised strict abstention from the carbon food, a strictly nitrogenized diet, some stimulation by ammoniated drinks; and in a brief period of time the paralysis entirely disappeared.

Within the past year I have held two inquests on the bodies of vigorous young men, entirely free from any diseased state or condition, death occurring suddenly from complete paralysis of the life forces, occasioned by free ingestion of beer. And in ending, let me pay my respects to beer, in the language of Mr. Robert Burton, in his *Anatomy of Melancholy*, when speaking of tobacco "Hellish, devilish, damned production—the ruin and overthrow of body and soul."

SELECTIONS.

OBSTETRICS.

ON OVARIOTOMY.* (THOS. KEITH, ESQ., M. D., F. R. C. S. E.)—In a period extending over more than fourteen years the mortality in my two hundred and thirty ovariectomies done without antiseptics was fourteen and one-half, or nearly one in seven. In the five years immediately preceding the use of the spray the mortality was but one in ten and one-half, while in the last of those five years—the year before I began the use of the spray—there was but one death in twenty-one cases. So you see the mortality was steadily diminishing during all that time. Immediately after I began to use the spray I had two deaths almost at once—both very bad cases. In the first eight under antiseptics there were these two deaths, and then there was a run of eighty without a death. But you must remember the solutions used at first were not very strong. As we went on and got to operating in the hospital we began to use them strong.

At first our greatest success was with the weak solutions. Toward the end we got to using the regular solution we use in every thing—the five-per-cent solution. I had not used this very long when I began to notice that the cases went on quite differently from what they had done before. The night after the operation we had very often high temperature— 104° , 105° , 106° , and once 107° . We had never had anything like that without antiseptics. In the entire two hundred and thirty cases I have referred to, in only two did the temperature rise to 103° the first night, and it never went to 104° , 105° , or 107° . I noticed the difference and wondered how it could be. I did not then think it was the absorption of the carbolic acid that did it, but I know now that it was. It was after seeing a paper by Bantock that that occurred to me. When I began operating in the theatre at the infirmary I used the solutions strong (Lister's strength), and frequently we had high temperatures in simple cases. In the first case, which was a simple case without adhesions, the temperature rose to 105° the first night. This was clearly traceable to the absorption of the carbolic acid. Then we began to

*While in Edinburgh last summer I had the extreme good fortune to see much of Dr. Keith and witness him do several ovariectomies. The unequalled success attained by Dr. Keith in this department of surgery naturally gives a value to his experience, his methods, and his utterances which can not be over estimated. My endeavor was to learn as much of these as I could. That this might be done with the smallest expense of time and trouble to Dr. Keith, I had a stenographer take down such questions as I put and the answers Dr. Keith made to them. The colloquial style of the paper is thus explained. In order to save space and the reader's time I have in this publication omitted the questions. The omission can be of no real importance, however, since Dr. Keith's words will suggest the questions which they were intended to answer.—D. W. VANDELL.

have this rise frequently; so that there was a sort of general order left with the nurses to put on the ice-bag when the temperature rose to 103° , and often on the first morning after operation when I came in the ice-bag would be on. We had never had occasion to do this before. I recollect a nurse who had nursed about two hundred cases had a patient one day with a high temperature, and I sent along some ice and an ice-bag, and she returned word that she did not know how to use them. I had forgotten that she had never had to do with high temperature. There is no doubt the carbolic acid raised the temperature the first night.

My belief in the spray was very much shaken in the course of the session before last. I had a death from acute septicemia in a healthy woman who I am certain would have got well if I had treated her by drainage without antiseptics. During the time I used the spray I had not drained as often as before, though I still drained in the bad cases. I never once lost faith in drainage. Before antiseptics when there was a doubt I drained, but with the spray I trusted this to keep every thing sweet, and often omitted to drain. I didn't drain this woman. There was a good deal of adhesion down behind the pubes and uterus. About twenty ligatures were used, yet I didn't drain, and she died right off from acute septicemia.

Almost the very next case was one in which I could not stop the bleeding. The tumor was attached to the inside of the ribs—a bad case of adhesion. Here I drained. The woman went on for thirty or thirty-five hours with a rapid pulse, high temperature, and constant vomiting. An immense quantity of red serum and blood had come from the abdomen. Toward morning of the second night she began to improve. It was a clear fight between drainage and septicemia. I am certain the spray didn't help us one bit. The patient would inevitably have gone wrong without the drainage. We compared the two cases afterward, and the reports were almost word for word the same for thirty hours—the temperature and pulse exactly the same; but the one was drained and the other was not. One died; the other recovered. Both operations were done with every possible care; indeed we were especially particular. Nor were they done in the theatre, but in a small room. So I do not think there could be any fault in the way the spray was managed. These things shook my faith in it very much, and at the end of last year after having two deaths in quick succession I gave it up altogether in my ovariectomies.

After the very first death from blood-poisoning I began to use the stronger solutions; put the sponges in a one-in-twenty solution—a tremendous strength. Then, operating in the theatre, with the students going out and in, there was a constant rush of cold air, and the spray, which used to do quite well at ten or twelve feet, had to be placed within two feet of the woman. The first four cases done in the theatre at the beginning of last ses-

sion had hemorrhage from the kidney, and two of them died. I never had had any thing like that before. It was purely carbolic-acid poisoning; of that I have no doubt whatever. The women who died of it went off quite differently from the other cases. They did not swell up in the way the other cases did; they did not have sickness and refuse their food; but on the third day there was hemorrhage from the kidneys. One died—evidently an intense case of carbolic poisoning—and one had convulsions. That settled the thing for me.

I need hardly tell you how carbolic acid affected me in my own person, further than to say it poisoned me too. But I went on for eighteen months or two years; just so long as the patients didn't suffer I worked away, and tried to get through the operation faster; put on the steam; got a big aspirator; did every thing to shorten time. For a long while I didn't ascribe the hemorrhage from my own kidneys to carbolic acid. But I finally began to suspect it. It was Bantock who first called my attention to this ugly effect of the acid. I was repeatedly ill from it. I had no operations with the spray in the last half of December last year, and I had none in January and February of this year. I had one at the end of March, by which time I was getting pretty well over my former hemorrhages. I was as bad as ever after the operation, and the patient did not recover well. Ever since that I have stopped the spray altogether, as I said, in ovariectomy.

Practically, I have not used antiseptics since, in the proper sense of the word, in my ovariectomies. Sometimes I do use very weak carbolic solutions, but not as spray; at other times I use water alone.

I keep the sponges warm. Of course I disinfect them in carbolic acid. After the first wash in soda and hot water they are put into a one-in-twenty solution just before the operation. This is then washed out and they are put into a solution of one in forty or sixty. Sometimes, however, it should be said, I put them in hot water alone.

I use ligatures of silk and catgut—catgut for simple things. When I tie the pedicle it is always with silk. I do not like to do it with catgut. I prepare my own catgut, because in getting it from the makers it is often rotten. For the external wound I use silk for the deep sutures and horsehair for the superficial sutures. I close the wound as perfectly as I can—as close as if it were a wound on the face. I do not look at it for a week generally. It is then healed. I cover it with carbolized gauze, softened with glycerine, about one in eight, and over that a layer of cotton wool and a flannel bandage.

I drain where the adhesions are extensive and where the abdomen will not dry. In some women the abdomen will dry without trouble; in others there is a constant oozing going on and when you cannot stop the bleeding, when your sponges are constantly coming up with blood, you must work away with

the sponges and strive to remove every particle of moisture. Tie everything. Stop the bleeding and leave the abdomen dry; and when you can't leave it dry, put in a drain. Of course this applies to bad cases only; and you will not get bad cases well without draining. I put the drainage-tube through the abdominal wall. It is a small, straight glass tube, adapted to the depth of the pelvis. You must see that it does not press injuriously on the rectum. I feel how it is lying on the rectum, and if it is making pressure I shift it up a little bit. I cover it with a sponge and wrap that in an India-rubber cloth for cleanliness. Doing this way you may often drain for a week and not a drop escape on the dressing or the dress, it being all collected in the sponge. I examine usually within four or five hours to see if anything is on the sponge. When the stuff will not run out itself I get it out by putting a syringe in the tube and sucking it out. I change the sponge night and morning. I formerly kept the drainage-tube in six days or a week, till the serum got quite sweet and pure; but now I take it out generally within forty-eight hours. If the amount comes down to a dram or two I don't mind taking the tube out, and that without any kind of precautions. After all, though, you must be governed by the quantity that comes. The most I ever got out by drainage in any one case was two hundred and forty-seven ounces. I got upwards of one hundred ounces in another case, and I have frequently gotten forty and sixty ounces. The ordinary quantity is from six to ten ounces. That is got twice a day, night and morning; most of it on the sponge; but sometimes you do not get anything out on the sponge. Sometimes, where there has been bleeding, every drop you take out from the pelvis will be almost pure blood. In one of my cases it amounted to twenty or thirty ounces. Nothing whatever came on the sponge. It is occasionally a sort of sirupy stuff. The patient from whom I got the two hundred and forty-seven ounces I drained for fourteen days. It was a case of burst colloid cyst.

The operation being over, I give the patient a little hypodermic morphia immediately when put into bed. It prevents vomiting and keeps her quiet. I give perhaps one-sixth or one-fifth or one-fourth of a grain, the amount depending on the patient. I give it after the operation and again the first night. It helps the patient to pass the time, and enables the nurse to get a rest. In the old days the nurse never got to bed the first night, but sat holding a basin for the chloroform vomiting. Since we took to using ether we have almost no vomiting.

As to food and drink, I give almost nothing the first afternoon. First I give a teaspoonful of water; not iced. A few patients like ice, but I prefer giving everything hot—almost scalding hot—especially hot water. When there is sick stomach very hot things will often stop the sickness. For the first five or six or eight hours it is better to give the stomach nothing, and

during the first night nothing but fluids. If the patient be very thirsty, give liquids, but in small quantities only, lest her stomach do not absorb them and vomiting result. As regards giving food, we have a sort of rule of thumb—not till flatus has passed. We generally begin with a little tea or gruel; but for the first two or three days patients do not care for much food. If they are weak, give brandy. They may have a little milk, or soda-water and milk, or milk and lime-water. They will not take much. My patients get solid food very sparingly until after the first week, and in many instances not then. Bad cases are better without it till later. I have seen a mouthful of solid food put cases wrong. What goes on after a bad case, where there is a lot of clots and ligatures in the abdomen, is absorption from the abdomen. The third case I operated on twenty years ago died in twenty-three hours, and there was not a particle of blood to be found when we examined the woman immediately after death; it had been absorbed.

We keep the patients warm, put hot bottles about them, and try to get them to perspire a little; keep them perfectly quiet, especially the first day or two, and allow nobody in the room but the nurse. I secure the action of the bowels by castor oil. Don't tell patients they are to get it. If you tell them at night they are to have a dose of oil in the morning it spoils their rest, and they say they can't take it. Just take it to them and say "take this." We don't allow them to get out of bed under a fortnight. We let them sit up in a week or ten days, the time depending on the state of the wound. We remove the stitches in a week or ten days.

If my patients vomit I just let them vomit. If it is bilious vomiting it will go on till the stuff is all off. If it is septic you can do nothing. If the stuff vomited is sour, give soda or fluid magnesia in a little water. The great masses of cases do not vomit at all. There has been an immense improvement as regards vomiting since we gave up chloroform. Since we took to ether patients will sometimes vomit during the operation and thereby rid the stomach of nasty stuff. But we no longer have the vomit of chloroform—a vomit which was so constant that the nurse regularly stood by the bedside with a basin in her hand to catch it. It is true, patients sometimes vomit when they come out from ether, but it isn't that horrid vomiting going on all the first night and all the next day we formerly had. Nor do I mind vomiting so much now as I used to, especially when I have a drainage-tube in. I rather like it in that case, because it helps empty any fluids that accumulate.

I do not use the catheter if I can help it. I have patients practice the use of the bed-pan before the operation; it helps their comfort very much and is a great saving of trouble. You must take the nurse a good deal into account, and make it as easy to her as you can.

I make no other pressure on the abdomen than that made by the bandage.

Sometimes when I have not been able to stop hemorrhage I make the pressure strong for an hour or two. I have never applied ice to the abdomen. I do not see any good in putting on ice. Some patients like ice to suck, but as a rule I give very little ice any way. Hot water soothes and stops sickness; and then it helps the skin; and it helps absorption. I keep the patient warm if I can. If you give a patient much ice or put it on her head it keeps down perspiration. I don't think I used five pounds of ice in my two hundred and thirty cases before antiseptics; but when I began antiseptics I had very soon to use ice on account of high temperature; but now that I have abandoned antiseptics I no longer have need of ice. Still I should use it now if the temperature went up.

After having once closed it I have never had occasion to open the abdomen, either for hemorrhage or to syringe it. I have several times opened it from below, between the uterus and the rectum, to let out serum; but that was before the drainage days. I had frequently to puncture behind the uterus to get out serum. It was the red serum which killed. When the patient died we were certain to find a lot of this red serum in the pelvis. I was always poking about in this locality. I got into the way of taking the bearings of the uterus immediately after the operation; learned how the cervix was; and I learned that whenever there was much accumulation of stuff in the pelvis the cervix would be found moved away toward the pubes. You are perfectly safe to put in a needle in such cases. I have often done so and got out red serum; but since the drainage I have needed nothing of the sort, unless there are specially bad symptoms. We never have now those cases of suppuration in the pelvis which we had before we began to drain. We had lots of them where the patient started off with a high temperature. The suppuration didn't often kill them. I don't know why; but they went on and had fever, and by the fourteenth or fifteenth day there would be an escape of pus from the rectum. I am certain they were sometimes saved by puncturing early and letting out this red serum. But with drainage and greater care we don't need to puncture now.

I did once open up an abdomen. A patient took acute septicemia a week after the operation. The temperature rose to 104° , 105° , and 106° , and in twenty-four or thirty hours she was away down to a skeleton. You see the flesh going off patients in that state at almost every visit. A thorough examination satisfied me that there was no fluid in the pelvis. There had been great adhesions. The woman had a dry tongue, distended stomach, and was sick. I took a few of the stitches out of the wound and put in my finger and felt all about, thinking I might come upon some collection. I broke up some adhesions to the surface of the intestines. My finger came out bringing some putrid stuff. I examined the abdomen—everything—with my finger. The only bit I did not examine was on the left side where there had been no

adhesions. I thought just after I had done harm by all this poking, but in the course of the night a teacupful of stinking serum came out from the wound. It came from the part where there had been no adhesion, and its escape saved the woman. Without it had escaped I do believe she would have died.

I do not know what to do when septicemia sets in. You may do anything you like. If the patient is some days or a week on, and bad symptoms come, she will sometimes get well.

I can give no special directions or information as regards diagnosis. Every man must make it for himself. There are no rules which cover all cases.

I have encountered tumors that I could not remove. But it takes a great deal to make me stop now when I am fairly begun; but every now and then I meet with a tumor I can not take out. I have almost always found such tumors malignant, and generally it happens that as soon as you open the abdomen you can see by the way the tumor runs into the tissue that there is no use trying to get it out. In case of a malignant tumor you just shut up the abdomen the best way you can. I have not shut up any for a good while, but such cases must happen sometimes in spite of all the care you take. The worst cases—cases where I have been once or twice completely beaten—are those associated with pregnancy. I was once completely beaten where the cyst was so adherent that I could make neither head nor tail of it. I simply left it and drained, and in spite of all the woman recovered. I have also done the same thing in three or four cases where I was certain beforehand I could not get the tumor out. Three of them were drained—at least the first two—and all happened within a fortnight. One was a splendid woman, whose business was to look after Italian refugees, and she had what was supposed to be a fibrous tumor. It grew, and she was dying. When first seen she was blue, vomiting, and had diarrhea. About two gallons of putrid stuff were got out. The cyst was so adherent to the rectum and pelvis that I knew I need not try to take it out. After a week or two she improved a little. The stuff re-collected, and I again made an incision five or six inches long, just as if for operation, turned out a lot of hair and bone, washed out the cavity with chloride of zinc, dried it as thoroughly as I could, and left it to suppurate. Contrary to my expectations, it suppurated but little, and the woman got well. Two or three others whom I treated in that way got well.

The old way of draining in such cases used to fail because the opening was not free enough. The operator was content to put in a tube and leave it there, but he omitted to make a free incision and leave the wound open. Of course you understand that this implies that the cyst is tremendously adherent to the abdominal walls, and is especially true of cases where the great

adhesion is in the pelvis and you are obliged to leave the operation unfinished.

The length of the incision is determined by the softness or hardness of the tumor. I make an incision as small as I think I can do with, and never a big one if I can help it. Yet the incision should always be long enough to let in your hand. Formerly I hampered myself by too small an incision. You may, I admit, break down a semi-solid tumor and get it through a small opening, but it is far better to make a sufficient incision. You work with far more ease to yourself, and where there is much adhesion a free opening is absolutely indispensable.

With regard to the time for the operation in the early days we didn't advise an operation till the patient was pretty far through—till it came to be a matter of necessity—and throughout all this time we had very bad cases and extensive adhesions; but now when a patient has a tumor I always say if it is to come out better have it out without loss of time.*

The convalescence depends on the strength of patients at the time of the operation. If strong and healthy they are well in a week and going about in a fortnight; but if a woman has a sixty or eighty pound tumor, requiring an operation of an hour or two, and there be lots of blood lost and much adhesion, and she has been tapped and weakened, she will not convalesce quickly; not under a month or six weeks.

I tap a great deal. I like it. I never saw any harm from it when properly done; but I constantly see mischief from the effects of bad tapping. In tapping I use the aspirator you saw used to-day. You may use any needle with the No. 6 or No. 8 catheter, because the stop-cock is the size of a No. 8 catheter. But the smaller the needle is the better, because the great risk in tapping, I think, is hemorrhage. I often tap to gain time if the legs are swollen; and then I frequently tap a small cyst, because a good many small cysts do not refill. I am not speaking of cysts of the broad ligament; but I have had a good many patients—perhaps a dozen—with small cysts, cured by tapping. There was a young lady whom I went to tap. The family wanted the tumor out. I said no, I would tap it; and I took out about sixty ounces of jelly, and she got perfectly well. Through the aspirator the stuff will run almost as thick as putty. You can even bring the fat out of a dermoid cyst. I have seen cases where tapping gave a little trouble, but I never saw death from it except once, and that was in a cyst of the uterus. The woman did well enough, though I handled the cyst a good deal the first day or two. She finally got well and went to Glasgow, but a week or two afterward she had acute inflammation of the cyst. The physicians

*[This is the view at present taken by most operators of large experience, although not in accordance with the rules laid down in "the books,"—which are not infrequently a long way behind the times. Ed. B.]

wrote asking what was to be done. I said, either tap the thing or have it out. She was tapped, and she died. I have never injected any fluid into the cyst after tapping. The less you do that the better, I think. In fact, these cysts are ticklish things to meddle with. I tap a great deal, and with the aspirator I see no harm from it. I sometimes aspirate when I am not sure what the fluid is. I just put in a small exploratory aspirator. If I get thin fluid I empty with a fine needle; if I get thick fluid I use a larger needle. I constantly see this: Patients are tapped in the country. The tapping is imperfect. The stuff isn't gotten out. The cyst is not adherent. Some of my very worst operations have been after imperfect tapping. The patient has been weakened. Something got into the peritoneum at the time, and when you come to take the tumor out it is just next to impossible. Adhesions come from imperfect tapping. Doctors are constantly tapping the wrong things—semi-solid tumors.

I am very careful to prevent the fluid of the cyst getting into the abdomen. It may do no harm, but it is a mistake to allow it, as well as being unsurgical. But the cyst may contain septic fluid if it has been often tapped; you can't tell beforehand. The stuff may be swarming with bacteria—putrid. When a cyst bursts some patients take it quite quietly; others it kills right off. Occasionally in operating I empty cysts by the aspirator, because they are sometimes so thin that if you put in the trocar they burst.

Sometimes I detach the adhesions before and sometimes after I empty the sac. If there are bad adhesions in front it is a very difficult thing to say which you had better do. If the adhesions are below I put in my hand and arm and endeavor to break them up. You must be guided by circumstances. If possible I like to see the adhesions—get a full view of them. I don't put much force on. The worst adhesions are to the under surface of the liver and right lumbar region, which I think happens in this wise: If the patient has an attack of peritonitis she almost always lies on the right side, and all inflammatory stuff gravitates down there, and thus you come to have the worst adhesions at that point and the most dangerous to deal with. The mesentery is a very nasty place for adhesion. After tying adhesions to arrest hemorrhage I clip off the ligatures. I do not like to have long strings about if I can help it.

As a rule I cauterize the pedicle. But for the last year I have been using silk ligatures a little. The cautery is a pretty thing, I think. You leave no foreign body in; you are certain to have no bleeding, and that the parts will slough and give no irritation. I like the cautery. It has treated me well. Really, I may say that with it the pedicle almost never bleeds; sometimes, but very, very rarely. The pressure with the clamp will be as even as you can make it. That you do by pulling the pedicle out and in the clamp. Brown's clamp is narrow at the far end, and if the pressure is not even you

may be certain there will be bleeding at the wide end. Then in the bit where the vessels are you must burn slow with dull red heat. You may go through the thick piece quickly, but when dealing with the thin piece you must be very gentle with the heat. You must give your mind to drying the bit between the blades. You require to make the blades of the clamp hot, so as to dry the tissue which they compress. Give your mind to that. The whole matter of clamp and cautery is a sort of combined forceps pressure and cautery; it is not cautery alone. Nor will pressure do alone, because pressure by itself will not dry the thing; but when to the pressure you add the cautery the stump goes in almost like a piece of horn, perfectly dry, and no blood can be given out.

I don't know what the critical days are. If the patient gets over twenty-four hours and is well, I am pretty easy. In acute septicemia the mischief begins in from fourteen to sixteen hours as septic peritonitis. When twenty-four hours are over, and the patient's pulse is going down, and she is not sick, and is looking nice I am pretty easy, especially if flatus has passed. Still, patients sometimes die after that time. There is always an exception. You think matters all right, and then something comes and upsets your calculation. Then you will sometimes have a death from an obstructed intestine.

I have used the perchloride of iron occasionally to arrest hemorrhage, and occasionally I use the cautery for the same purpose; but I tie every bleeding thing I can with fine catgut. Oozing points do not require to be stopped long. If you stop the bleeding half an hour, that is all you want. The catgut answers every purpose, only you cannot take in a great amount of tissue with it. You can take in three times the amount with a silk ligature that you can with catgut; hence it is a saving of time to use silk where the masses you have to tie are large. Always tie vessels carefully; then always sponge thoroughly. The man who does these things as they should be done must be a surgeon and must be doing a lot of surgical work. It is not the miwifery men that will be successful. One must be always at it. A bad ovariectomy will try you more than any operation in surgery, because you must work at such a rate to get through a certain amount of work in a given time. When the operation goes beyond an hour and a half, every five minutes lessens the patient's chance; and when you have fifty or sixty vessels to tie, and many of these hard to get at, and a lot of sponging and trouble, ovariectomy must be your daily work if you are to do it well. The simple cases, the *ordinary thing*, any body can do.

As regards the second of the points just mentioned, be sure and clean the entire abdomen and all the vessels about it, and notice with special care the parts between the bladder and the uterus—parts so constantly filled with red serum—always looking into that corner, for the reason that if any thing re-

mains it is sure to be found there. I use the reflector for the purpose of looking in upon the parts. It is an enormous assistance. It enables you to see the bleeding parts at once.

So far as the mere operative work and management of ovariectomy goes, I should say that the essentials of success were strict attention to detail—perfect cleanliness—perfect nursing—perfect quiet, and unremitting care, such as all severe operations in surgery really demand. Stop the bleeding; no matter if your patient is almost dead, stop the bleeding, if this be possible; and when you can't stop it put in a drainage-tube. Dry the abdomen as thoroughly as you can, and when you can't leave it dry put in a drainage-tube. Finally, be gentle with every thing.—*American Practitioner*.

THE DEVELOPMENT OF A SINGLE BREAST IN GIRLS.—M. Despres took occasion of the presence of a girl at his clinic to draw the attention of his class to a circumstance that causes alarm to mothers, and is sometimes judged wrongly of even by physicians. This was an example of the development of only one breast at the age of puberty, when the belief is often entertained that this arises from the presence of a tumor. The girl was thirteen years of age, and was brought to the hospital under the idea that she had a tumor of the right breast, the left one not yet having undergone any change. Her attendant had prescribed iodide of potassium. M. Despres at once assured the mother that it was only the natural development of the organ, and would soon be followed by the appearance of the menses and the development of the other breast. He observed to his class that while it is natural for mothers to be deceived in these cases, it should be impossible for the surgeons to be so. In fact there exists under the breast a regular prominence in the form of a movable disk on the chest, without the slightest adherence to the skin, and accompanied by no pain whatever. The nipple is exactly in the center of the tumefaction, and although the developing gland is resistant, it is never irregular and never presents lumps. A tumor of new formation, such as a sarcoma, is always harder and is never found exactly in the center of the mammary region.—*Gaz. des Hop.*—*Louisville News*.

PREVENTION OF RUPTURE OF PERINEUM.—The latest method, that of Dr. Thad. A. Reamy, of Cincinnati, consists (*Medical News*) in placing the patient on her back with the limbs flexed to the greatest practicable degree, and stretching smoothly over the bulging perineum a towel, the extremities of which are held beyond the gluteal masses on either side by his own or his assistant's hands. The perineum is not touched except by the towel, and all the tension is made from the ends of the towel. Applied smoothly in this manner, with its upper border on a level with the posterior commissure, and the posterior border extending to a point opposite the coccyx, the towel

forms a supplementary perineum, which, while remaining untorn, effectually prevents rupture of the tissues beneath. It should not be removed until after the shoulders are born.

IS ANTEFLEXION OF THE UTERUS A CAUSE OF DYSMENORRHEA?—At a meeting of the London Obstetrical Society, October 5th, Dr. Herman read a paper on the above subject, in which the author makes an elaborate and well-sustained argument against the prevalent view.

Few persons educated in New York have not heard the pathology of obstructive dysmenorrhea graphically described, and the neck of the uterus compared to a gutta-percha tube, which is obstructed when bent at an angle. The illustration is simple, and at first thought convincing. Dr. Herman's arguments against this view are as follows: 1st. There is no anatomical evidence that anteflexion causes any hindrance to the escape of menstrual fluid. 2d. There is reason to think that anteflexion is present in nearly half of all women who have not borne children. 3. Therefore it is to be expected that anteflexion and dysmenorrhea would frequently coincide. 4th. Dysmenorrhea is, practically, as common when the uterus is straight as when it is anteflexed. 5th. Painless menstruation is, practically, as common when the uterus is anteflexed as when it is not. 6th. When dysmenorrhea and flexion go together, the severity of the pain bears no relation to the degree of the bending. 7th. Dysmenorrhea, associated with anteflexion, is frequently cured without straightening the uterus. 8th. There is no evidence that straightening the uterus invariably, or even frequently, removes dysmenorrhea, which is associated with anteflexion, and in which other methods of cure have been ineffectual. 9. These facts show that the relation between anteflexion and dysmenorrhea is not one of cause and effect, but of coincidence.—*Med. Record.*

RETRACTED NIPPLES.—So soon after labor as the female has had a little repose, the child must be put to the breast, the effect of which is to remove a certain amount of fluid from the milk ducts; and at the same time this is the most efficient method by which a retracted nipple is drawn out or elongated. Another effect is to act sympathetically upon the womb, producing contraction of that organ; it is in this way that nursing increases after-pains, and that it sometimes relieves a tendency to flooding. If the nipple is too short, or flat, for the child to take hold, it may be drawn out by the gentle suction of the breast-pump, or what is better, by filling an ordinary quart bottle with hot water, and allowing the liquid to remain until the bottle is well heated, after which it is poured off and the mouth of the bottle immediately placed against the breast, inclosing the nipple. The bottle is held steadily in this position until it cools, the latter process being aided, if

desired, by wrapping its body with a cloth wrung out of cold water. The effect of the cooling is to condense the inclosed air, and create a partial vacuum within the bottle, thus causing the nipple to be firmly sucked up within its neck; when this state of things has been maintained for some minutes, and the bottle is removed, the nipple will be found considerably elongated, and standing out prominently, in which condition the child is enabled to take it into its mouth and nurse. This procedure may have to be repeated a number of times on each breast, until the nipples assume a more permanent shape, and the child gains greater confidence and experience.

The advantage of this bottle arrangement is that it acts steadily and gently. It is most important to bear in mind that *gentleness* and *steadiness* should characterize all efforts made either with a view of drawing out the nipple, or of emptying the breasts.—Walter Coles, in *St. Louis Cour. Med.*

HOURL-GLASS CONTRACTION.—The drift of opinion in the New York and Philadelphia Obstetrical Societies seems to favor the view that such cases are due to spasmodic contraction of the internal os. Any one who has attempted to remove the placenta or membranes lodged in the cervix in an abortion, will appreciate this explanation of hour-glass contraction.

In the treatment Dr. A. H. Smith has found hot water injections (115°) to answer an admirable purpose, relaxation taking place at once.

SURGERY.

AUTOMATIC TRACHEAL RETRACTOR (A. Caille, M. D., in *N. Y. Med. Record*).—A small instrument, which will be found useful in tracheotomy, consists of a rubber band, at each end of which is fastened a short brass-chain, and attached to the latter are two curved and sharp hooks. The chains are so adjusted that they can be lengthened out or shortened at will, thereby adapting the retractor to small or large necks. In performing tracheotomy, the surgeon is usually fortunate if one trustworthy assistant be on hand, who is expected to administer the anesthetic and assist at the wound as well. If the patient is in any way troublesome (as is frequently the case), the operator may not be able to proceed with the necessary ease and facility. In such a case this automatic retractor will be of service; it will keep the edges of the wound well apart; it may be hooked into the fascia as the several layers are divided, and finally into the tracheal wound. The trachea may be examined at leisure, and there need be no haste in getting the tube its place. The instrument may be used as a general retractor in operations requiring careful dissections, in different parts of the body; but it is especially applicable to the neck.

SPONGE GRAFTING.—Dr. Hale, England, (*Brit. Med. Jour.*, Dec. 24.

1881,) reports two cases, attended by good success. In the first the side of the finger had been cut off by a plane; in the second there was loss of a portion of the penis, subsequent to an operation. In each case a fine Turkey sponge was applied to the granulating surface and was followed by firm adhesion in four days. In three weeks a thin layer of new tissue covered the edges of the sponge. The object of grafting was, in the first case, to restore proper form to the finger, and in the second to prevent the awkward results of cicatricial contraction in the penis.

NOVEL TREATMENT OF INTUSSUSCEPTION.—In a case of intussusception in which the descending bowel could be felt in the rectum, Dr. McGown (*Brit. Med. Jour.*) resorted successfully to the following experiment: Obtaining a piece of sheep's colon six inches long, he tied one end and connected the other to a piece of rubber tubing a foot long, through the interposition of a short tube of ivory; the apparatus was completed by attaching the free end of the rubber tube to a stop-cock. The sheep's colon was now passed into the rectum through a speculum, blown full of air and the stop-cock closed. The pressure thus exerted on the prolapsing bowel caused its reduction, and the patient recovered.

GANGRENE FOLLOWING INJECTION OF MONSEL'S SOLUTION OF ANEURISM OF SUPERFICIAL PALMAR ARCH.—Dr. W. W. Keen reports the case, which he saw in consultation, in the *Annals of Anatomy and Surgery*, for March. About ten drops had been injected into the tumor, which was as large as a small cherry on the radial side of the hypothenar eminence. The case was unfortunately one in which there was no *superficialis volæ* and the ulnar-artery supplied the *radialis indicis*, and the ulnar half of the *princeps pollicis*. The resulting gangrene involved so much of the hand as to necessitate amputation at the wrist. The patient was a healthy female child, aged 7 years.

A case somewhat similar was reported by Dr. Hudson in the July issue of the JOURNAL, in which, however, the substance injected was nitrate of silver in solution.

BILLROTH'S OPERATIONS.—It is no wonder that Billroth does remarkable operations. In the first place he is responsible to no one; there is nobody to question him and to ask, why do you do this, or why do that? The patient has not a word to say in the matter. If Billroth determines to do an operation, that is the end of it; he is supreme. If the patient recovers, all right; if he dies, all right; not a particle of difference either way. I do not know if he even has any particular satisfaction in the recovery of the patient; it all lies in the fact of having done the operation. In the second place, Billroth has been first professor for years. He has the most abundant mate-

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rial for all classes, qualities, and kinds. He does all kinds of surgery, including everything relating to the female generative tract. There is no specialty of gynecology of any consequence here. There is not a day in the year, and has not been for years, that Billroth has not done major operations. I do not mean amputations of limbs or resection of joints—he would not look at such a thing. Why! he whips out a goitre as a sort of by-play while the patient is being etherized. To take out a tongue is easy for him, and he ties the lingual arteries on both sides with the utmost ease. So exceedingly familiar is he with the topographical anatomy of the body that he rarely uses a director, but cuts right down to the place. He stops at nothing. The other day he was removing a cancerous ovary which was found to be adherent to the bladder and part of the small intestine. Does he stop? No! He cuts out a section of the bladder, stitches it up, cuts off seven inches of the intestine, stitches the ends together, removes the growth, closes the wound, and the woman recovers. I saw a man in the ward with a cancer of the stomach at the pyloric end, and after opening the abdomen, he found the disease so extensive, involving so much, that he could not remove the growth at all. Does he close up the wound? Not he! He cuts down to the healthy gut, snips it off, cuts a hole into the healthy part of the stomach, stitches the gut to it, and the man is getting fat. Now I say that, to be sure, they are wonderful operations; but why shouldn't they be? Billroth has attained this boldness and amazing skill in surgery by easy stages and after years of daily operating. Another thing, if he proposes doing an operation a little new or out of the way, he has one cadaver or a dozen to experiment upon, if he wants them, at any time or hour of the day. There are twenty to thirty bodies in the pathological rooms every morning.

In Heitler's ward I was shown a case of pleurisy with large effusion. When I asked for treatment, he said the patient will get no medicine. And though the chest was bulged out enormously, he would not tap, because he said it was bad practice. The patient did well. They give no medicine for pneumonia except "may be a little *ippecac.*" You would be amazed at the number of doctors I meet here who are skeptical as to the efficacy of medicine.

Volkman of Halle, one of the very remarkable joint surgeons of the continent, cuts right plumb into a joint, knee, hip, or elbow, and has good results.

The great antiseptic is iodoform. It is used in every operation and every character of sore. After the operation is over the wound is covered with fine mosquito netting, dusted full of iodoform, so that it looks like yellow mosquito bar; then absorbent cotton is next applied, following this, cloths wet with carbolized water, and over all the roller bandage. When operations for a cancerous vagina, os, etc., are done, the vagina is stuffed with iodoform tampons, and the wound not looked at for days. When the dressings are

removed they are sweet and pure. Old cancerous sores are dusted over with iodoform. One day I saw an assistant blowing iodoform into a cancerous mouth. There was not a particle of smell from it, although hitherto the ward was made unbearable with it.—McClelland in *Med. Times*.

Fluid extract of ergot is recommended (*Am. Specialist*) for conjunctivitis and pannus, used locally as eye drops.

CHILBLAINS AND FROSTED PARTS.—If the skin is in a state of hyperemia, stasis, with exudation, and presents a swollen and livid color, together with great itching, the following combination may be of benefit:

R. Chloroformi
Tinct. opii
Tinct. aconiti
Spirit. hamamelis virg.....aa ziv. M.

Sig. Sponge over the surface when troubled with itching. After using the above lotion, the ointment of the oleo-palmanate of lead applied with an old piece of muslin may serve still more to give permanent relief.—Dr. J. V. Shoemaker, in *Med. Bulletin*.

LOSS OF HAIR.—In case of general thinning and loss of hair, when the exciting cause has largely been due to dandruff of the scalp:

R. Tinct. of saponin.....3iss
Fluid petroleum.....3j
Hydrarg. oleate3iss

Sig. Shake well, after which pour a small quantity in the palm of the hand, rub between the hands, and then apply with friction to the scalp.—*Ibid.*

CHAPPED HANDS.—Sheep suet and camphor melted together and applied at night give the very best results. The proportion should be about one drachm of camphor to two ounces of sheep suet, or a piece of camphor about the size of a large walnut, with half a teacupful of sheep suet.—*Ibid.*

REDUCTION OF DISLOCATED CERVICAL VERTEBRA AFTER THREE MONTHS.—Dr. L. C. Gray, of Brooklyn, reports the case in February *Annals of Anatomy and Surgery*. The patient was fifteen years old. The only immediate symptom following the fall which produced the dislocation, was difficulty in swallowing. This increased steadily, and after thirteen weeks the bladder became parietic, and, still later, numbness of various limbs and left hemiplegia came on. At this time there was a projection as large as a pigeon's egg over the third cervical vertebra, the spinous process was markedly deviated to the right, and a depression corresponding to the same verte-

bra, could be felt in the posterior pharyngeal wall. As death seemed inevitable unless aid were given, an attempt at reduction was decided upon—its dangers being fully explained to the patient and his friends.

Counter-extension was made by sheets across the shoulders, and extension by the hands of Dr. Gray—reinforced by those of an assistant placed over his own—upon the occiput and brow. Another assistant, by a finger introduced into the mouth, was able to indicate what progress was being made as the forces were applied. Reduction was effected without great difficulty or any accident. The head was held in proper position for three weeks; but on getting up at the end of this period, some displacement was produced after a few days exercise. A second reduction was therefore made, which proved to be permanent. The boy is now well.

The case is probably unique, but its success seems to indicate that the dangers of attempting reduction in such cases have probably been exaggerated, and that the benefits to be secured by such reduction have not been properly appreciated.

SURGICAL OPERATIONS BY MACHINERY.—In the progress that has been made in superseding hand-labor by machinery, the domain of the surgeon has at last been invaded. The skill of the inventor has long been taxed in furnishing improved instruments for surgical operations, and now Dr. W. G. A. Bonwill, of Philadelphia, has devised a machine to take the place of the hand in the management of these ingenious tools. It is a decided advance, both in the comprehensiveness of the machinery and its varied applications, over anything which has preceded it.

The apparatus has been for some time in use in several of our principal Eastern cities, where it is received with much favor by leading surgeons. Quite recently it has been brought to the attention of English surgeons, at the International Medical Congress, and a London journal comments upon it as follows :

“Our American friends have always been foremost in devising mechanical appliances for superseding manual labor, and Dr. Bonwill's is the latest which has been brought under our notice. Besides saving labor, the present machine tends to redeem from something of barbarism certain surgical operations, particularly amputations. As well as being the latest addition to the list of labor-saving appliances, it is, perhaps, the most startling, inasmuch as the amputation of a limb may now be effected by the aid of machinery.

“The surgical engine of Dr. Bonwill consists of an iron standard carrying an arrangement of multiplying wheel gear, which, by means of an endless cord passing over pulleys, transmits rapid rotary motion to either small drills or very fine circular saws, as the case may be. These instruments are attached to the end of a series of rods connected by universal joints, which

permit the operator to move the cutting instrument in any direction he pleases while it is revolving at an incredibly high speed. It will, of course, be understood that these instruments are intended to deal only with bone. Thus with the drill, it was shown that in cases where it is desired to hold the parts of a fractured bone together in a certain position, holes can be drilled and pins inserted, which, being held in a steel frame, keep the parts exactly in position. With the circular saw it was demonstrated that pieces of any required shape can easily be cut out of and removed from a bone, or a bone can be cut through in a few seconds.

“For amputations, a small, straight saw can be used. It is simply fitted into the holder, and as it is attached to a small eccentric worked from the main gearing, it has a very rapid reciprocating action imparted to it when the gearing is put in motion, which is done by means of a small hand-wheel. The comparatively slow movement of the hand of the operator is here replaced by the inconceivably rapid motion of the mechanical saw. By this means not only is the time occupied in the operation greatly shortened, but the operation itself is much more neatly performed, owing to the smallness of the cutting instrument and the high speed at which it is moved.

“Dr. Bonwill is certainly entitled to the thanks of the medical profession, and no less those of the suffering public, for having dedicated his invention to their free service.”—*Boston Jour. Chem.*

THE EARLY DIAGNOSIS OF SPINAL CARIES.—Dr. William Russel sets great diagnostic value upon the production of pain by pressure on the shoulders, in case of incipient spinal caries. He states that he has never failed in eliciting pain when he suspected caries. The pressure should not be downwards only, but also downwards and laterally, so as to explore in this way both sides of the vertebral column. The absence of pain over the spinous processes is of little value, and is frequently noted where caries really exists. If the lumbar vertebræ be affected, “pain in the stomach” is frequently complained of, and pain can be produced by pressure through the abdomen. Pain in lumbar caries can be brought on by a full meal. Pain in stooping is also an early and valuable diagnostic sign.—*Brit. Med. Jour.*

FELONS.—In a clinical lecture on whitlow (*Med. Times and Gazette*) Mr. Heath says that the subject is meagrely treated of in the text-books. If met with in the earliest stages, when the finger has just begun to redden and tingle, a twenty grain solution of nitrate of silver, or the silver stick wetted and lightly penciled over the affected part and a little beyond, checks it at once. When the whitlow is a little more severe—that is, when pus forms about the nail or the tip of the finger—the cuticle, which is insensitive, may be incised. Occasionally, however, when a foreign body has found its way

beneath the nail, pus forms there and gives rise to excruciating agony from the tension beneath unyielding structures. Judicious cutting of the nail will relieve this if near the margin; but if near to the base, it is much better to pare down through the nail with a sharp knife until the matter is let out, than to resort to the unnecessary cruelty of removing the entire nail.

The third kind of whitlow is really an acute necrosis of the terminal phalanx, following periostitis and suppuration beneath the periosteum, just as it does in the case of a long bone. A very slight injury—the prick of a needle or pin—may set it up. After some hours' uneasiness, the pain becomes acute and throbbing, and entirely prevents the patient sleeping. If timely relief is not given, pus will very slowly make its way to the surface of the finger, but never up the sheath of the tendons, and, when discharged, will leave the greatest part of the phalanx bare and dead behind it. A timely and free incision is the only mode of saving the phalanx, and cannot be resorted to too early; for, if no pus be present, the inflamed periosteum will still be divided with great relief to suffering. The finger should be held firmly on a table, and the surgeon, entering his knife just above the traverse interphalangeal mark in the skin, should cut boldly down to the bone in its whole length from base to apex. When, as so often happens, these cases have been treated domestically with "soap and sugar" and poulticing until the end of the finger is riddled with sinuses, there is nothing to be done except to extract the necrosed phalanx as soon as it is loose, and to bring the finger into shape by careful water-dressing applied in strips. The base of the phalanx usually survives, giving a point of attachment to the tendons.

Inflammation of the skin and subcutaneous tissues may occur in any part of the finger. Incisions must here be made with care, so as not to open the *seca* or sheaths of the tendons, which then invariably slough, and the patient is left with a useless finger. For this reason incisions on each side of the finger are safer than one in the centre, that may unawares let out the tendons, which will look perfectly healthy at the moment, but soon become soddened and softened.

The synovial sheaths of the flexor tendons of the thumb are often, though not always, in direct communication with the synovial membrane of the annular ligament of the wrist, and hence pus is rapidly conducted in this way up to, and, if not relieved, into the forearm.—*Canada Med. Record.*

THE ABORTIVE TREATMENT OF FELON WITH COPAL VARNISH. (A. B. Isham, M. D., of Cincinnati, O.)—About a year ago, I met by chance a burly colored brother in a drug store; one of his hands was enveloped in flannel bandages of enormous dimensions, while his countenance and his groans betokened an intense degree of physical suffering. He volunteered

the information that a regular physician to whom he had applied had pronounced him the subject of a deep-seated felon of the palm of the hand, and had proposed an incision through the inflamed tissues. Before submitting to incision, however, he intended to test the virtues of a prescription recommended by a sage of his own race; one who made plane surfaces, or the souls of sinners white, as exigencies demanded. The remedial agent advised was copal varnish. Flannel bandages were to be saturated with this, the affected part enwrapped therein, and dry flannel envelopes externally were to complete the dressing.

Three days thereafter I again saw the same individual carrying a hod. He wore a triumphant expression, and the previously bandaged member was bare, and, to all appearances, normal. He said that within a few hours after the application of the varnish, the pain ceased, and the swelling and heat rapidly reduced. I made mention of the case to the physician who was reported to have been consulted. He stated that when he saw the hand there was a severe phlegmonous inflammation, the member was swollen to apparently twice its natural size, and that, in all respects it resembled whitlow of the palm in the acute stage.

Notwithstanding the rather remarkable resolution in this instance, my anticipations from the employment of copal varnish in prospective cases of felon were by no means sanguine. The cogent influences leading to a trial of it, were that it was simple and harmless, and that it would serve to satisfy patients that something was being done for them fully as well as anything else, while it could not be inferior to any plan of treatment in vogue, short of free incision.

Since the observation above detailed, thirteen (13) cases of whitlow have been presented to me for treatment. In six of these cases a formation of pus having already occurred, they were not deemed fit for the trial of the varnish, and incision was resorted to. In the other seven cases the varnish was the only agent used. The terminal phalanx of the thumb was the part involved in two; that of the index-finger in five cases. In all there was swelling, redness, heat, and great pain; in one a vivid erysipematous blush extending over the thumb, wrist, and extensor surface of the forearm; in two cases there was apparently a combination of what is popularly called "run-around," with felon of the flexor digital surface, about and near the point. Perhaps in none was the periosteum involved, though several did not differ from cases I have seen in the acute stage, where necrosis and extrusion of the terminal phalanx subsequently took place. In all the seven cases to which the varnish was applied, there was a rapid subsidence of the inflammatory process and its accompaniments, and by the second or third day, the parts were perfectly normal.

If the varnish upon the dressings become unpleasantly hard by drying, it

may be softened by adding fresh material from time to time. Its removal may be easily accomplished when found desirable, by rubbing in lard, and then washing with soap and water. No good can be expected of this treatment, except possibly to relieve pain, after suppuration has ensued, since it is a cardinal axiom in surgery that, where pus is formed, it must have exit.

—*Phil. Med. News*

TORSION OF ARTERIES.—At Guy's Hospital torsion is used to the exclusion of the ligature, except sometimes in very small vessels wherein it is difficult to isolate the vessel from muscular fibres. Very large statistical showing is made in its favor. I have seen every kind of amputation there except of the hip-joint, and never a ligature applied to a large vessel. They use no transverse forceps, but seizing the cut end of the vessel with strong forceps twist it until it is felt to "give way," that is, the two inner coats break. I have often seen six and sometimes ten complete turns given to the emoral artery. Mr. Bryant said, "Doctor, theoretically the twisted end ought to slough off, but *practically it never does*. We have to talk to our students about secondary hemorrhage, but we do not show it to them." Mr. Lucas told me that for a long time they have ceased to dread or look for secondary hemorrhage.—London Correspondent of *Boston Med. and Surg. Jour.*

MEDICINE.

NUTRIENT SUPPOSITORIES.—H. E. Spencer, L. R. C. P. E., in the *British Medical Journal* gives a short description of a plan of rectal feeding which he claims has many advantages over the usual one, of enemata. Artificially digested meat is mixed with a little wax and starch, and made into a suppository. These suppositories are of such a size that the digested and extracted product of twenty ounces of meat from which the insoluble matter is removed, is contained in about five suppositories. The convenience of this method is very great. It is easy for most persons to introduce them themselves; and their use is attended with no discomfort whatever in the majority of cases. After an hour or two the waxy basis is frequently returned, the peptone and extractive being absorbed. In some few cases, owing to irritability of the rectum, the whole suppository has returned; but this can be obviated by the addition of a little opium to such suppository. He reports excellent results in their use in cases of gastric ulcer, stopping all food by the mouth for a fortnight or so, and ordering the patients to insert a suppository every four hours, and also in a case of cirrhosis of the liver, where gastric irritation was a prominent symptom. Mr. McGill, of Leeds,

reports two cases of gastrostomy, in the *Lancet*, in which he found these suppositories of the utmost value. Mr. Weekes, of York, has now under his care a case of gastric ulcer, in which they have been retained after carefully administered enemata had returned.

It is true that the amount of food administrable in this way is very small, but every practitioner who has had cases of obstinate vomiting under his care knows how minute a quantity of nutriment will "keep soul and body together" for several weeks or months.

AN ANTI-NAUSEANT.—R. Creasote, 20 drops; acet. acid, 40 drops; morph., sulph., 2 grains; water, 2 ounces. M. Sig. Teaspoonful in a little water.

CRUDE PETROLEUM AND MALTINE IN PHTHISIS.—In the August number of this *Journal* we called attention to the fact that good results had been obtained from the use of crude petroleum in phthisis. We believe this remedy is now much used by American physicians. One drawback in its use is the difficulty in making it palatable for the patients. Messrs. Reed and Carnick have succeeded in making an excellent emulsion by combining it with maltine, the nutrient qualities of which are so well known.—*Canada Jour. Med. Science*.

A PRACTICAL METHOD FOR PREVENTING THE SPREAD OF INFECTIOUS DISEASES IN HOUSEHOLDS.—Dr. Malcolm McLean, of New York, gives the following method of preventing the spread of infectious disease (*N. Y. Med. Record*):

The plan consists in *filtering the atmosphere* which surrounds the patient through a carbolized or otherwise disinfectant sheet of muslin, which is closely tacked over the door-frames of the room in which the patient lies. Close all unnecessary doorways by tacking the sheet *all about* the frame, bottom, top, and sides. The *one* door which is needed for ingress and egress is protected by tacking a similar sheet across the top, down the whole side of the hinge side of the doorway, and down the lock side as far as within five feet of the floor. This filtering-sheet is made long enough to hang closely to the frame, and fall in folds upon the floor, where it is not tacked. By keeping such a sheet sprinkled with a solution of carbolic acid, or other reliable disinfectant fluid, all, or nearly all, of the air of the infected room is *filtered* through a tissue which seems to *destroy the infection in its passage*. Moreover, the filter acts by moral effect, for it happens that intruders into the sick-room are very rare; and thus a great danger and prolific source of the disease is practically removed. Indeed, the whole household are reminded that there is a something within to be avoided. Of course the nurse must use care not

to allow anything to be removed from the room in a condition to carry the poison without.

To sprinkle the sheet, pour the disinfectant solution in a flat dish, and dip a hair brush in it, and with this throw the liquid over the filter. There are three positive points gained by using this method: 1st. The air of the sick-room is not mixed with the air in the rest of the house. 2nd. Visitors are much less likely to visit the sick-room. 3rd. The air of the sick-room is kept more easily at an even temperature.

CALABAR BEAN IN EPILEPSY.—Every now and then an article appears in some journal about Calabar Bean, and it is recommended for various diseases, notably in tetanus and epilepsy. The assistant editor of this journal wrote his graduation essay on Calabar Bean, and in studying the literature of the subject found so many cures of epilepsy reported that he was led to believe that we had almost a specific for this terrible disease. Subsequently, during an experience in a large hospital, he was afforded the desired opportunity of using the bean in a *very* large number of cases of epilepsy, and found it to be utterly worthless. It had no effect whatever, unless it may have intensified the paroxysms, since it was noticed in more than one case that a seizure for which the bean was given was more violent and lasted longer than another attack in the same person when it was not used.—*Med. and Surg. Reporter*.

TREATMENT OF INDIGESTION AND HEARTBURN. (Dr. J. Miller Fothergill in *Practitioner*).—For the purpose of whetting the appetite and thus acting reflexly on the gastric secretion, we employ the class of agents known as bitters. To these we add hydrochloric acid. Ringer has pointed out how an alkali taken into the stomach before a meal, when the stomach is alkaline, produces a freer flow of acid afterwards. Consequently we comprehend the value of that well-known preparation indifferently termed, "Haust. Stomach.,"* or "Mist. Rhei et Gentian.,"† in the various hospitals; a combination of world-wide fame. Such a mixture before meals, followed by ten drops of hydrochloric acid after the meal, will often make the difference betwixt imperfect digestion, producing discomfort, and digestion so perfect that it does not provoke consciousness. Or where there is much irritability in the stomach, *i. e.*, when a bare, red tongue imperfectly covered with epi-

*[Haust. Stomach.,"] formula, used in St. Thom. Hosp.: Rhubarb, bruised, 25 grains; Bicarb. of Sodium, 3 drachms; Gentian (sliced) 1½ drachms; Ginger (bruised) 20 grains; Distilled Water (cold) 1 pint. Digest for 14 or 15 hours, with occasional agitation, then strain the decanted and expressed liquor and keep in a cool place.—Eds. JOURNAL.]

†[Formula for "Mist Rhei c. Gentian.": Rhubarb, Gentian and Orange Peel, of each, 3 drms.; boiling-water, 2½ pints; macerate for an hour and strain; then add Bicarbonate of Soda, 1 oz.; Aromatic Spirit of Ammonia, 1 oz.; Spirit of Caraway, ¼ oz.—Eds. JOURNAL.]

thelium suggests a like condition of the internal coat of the stomach, then bismuth is most soothing. The mixture of soda, bismuth and calumba is in use for such digestion with good results. The dietary in such a case should consist of the blandest food, milk with or without baked flour in it, beef tea with baked flour; nothing more till an improved condition of the tongue tells of a more normal condition of the stomach. In such cases a plain opium pill at bedtime often soothes the stomach very nicely. Then there are cases where imperfect digestion is accompanied by the production of fatty acids, butyric and others, which add the phenomenon of "heartburn" to the symptoms; or there may be later products formed which cause the bitter, hot taste in the mouth on awakening in the morning, or after a post-prandial nap. It is usual to treat "heartburn" by an exhibition of an alkali; but this is not good practice. In union with an alkali the offending matter is nearly as objectionable as in the form of free acid. It is much better to give a mineral acid, as the hydrochloric or phosphoric, which breaks up the feeble organic acid. By such means we can aid the digestive act. Then at other times the indigestion is due to lithiasis, where the presence of uric acid impairs the efficiency of the gastric juice. In these cases all measures which do not entertain the causal relations of the dyspepsia are of little use. By administration of potash in a bitter infusion, well diluted, taken half an hour before a meal, this element of trouble is removed. In all cases of gouty persons suffering from dyspepsia, do not forget this cause of impairment of the gastric juice.

REVIEWS AND BOOK NOTICES.

Prices are always inserted when furnished by the publisher, or when obtainable from the bookseller.

Sewer-Gas and Its Dangers. With an exposition of common defects in house drainage, and practical information relating to their remedy. By Geo. P. Brown. Chicago: Jansen, McClurg & Co. 1881. 12 mo. Pp. 242. Cloth. Price, \$1.25.

The first part of this book is devoted to briefly detailing instances in which the author has hunted up the defects in drainage in houses where had occurred one or more deaths from diphtheria, or other "filth disease." Some of the cases are simply horrible, and show to what depths of depravity a certain class of contractors can go, especially when aided and abetted by equally conscienceless speculators.

The plan of house drainage, with soil pipe and connections complete, which the author recommends, is that now adopted by all enlightened sanitary engineers (and few architects can be included in this number), and has already been indicated in the JOURNAL.

The book should be in the hands of every man who intends building for himself a home, and also in the hands of every man who belongs to the great class of tenants. It points out the dangers, shows how to look for defects, and indicates the remedy, in clear, plain language, with no technical terms. Had the writer of this notice known two years ago what is so plainly taught here, the knowledge would have saved him in money more than a hundred times the cost of the book; which amount has been expended in tearing out defective plumbing and putting in that which is correct.

Indigestion and Bilioussness. By J. Milner Fothergill, M. D., etc., etc. Pp. 90. Paper. 35 cents. Birmingham & Co. New York.

We have already noticed this book, as issued by another publisher. As now presented it is a part of the Library of Medical Classics, and is of interest owing to its cheapness.

The Prescriber's Memoranda.—New York: William Wood & Co. 1881.

This is a little 16mo, of 300 pages, having the diseases arranged alphabetically with the treatment under each. It contains a large number of prescriptions by the most eminent physicians and surgeons.

The Christian Religion. A series of articles from the *North American Review*. By Col. Robert G. Ingersoll, Judge Jeremiah S. Black, and Prof. George B. Fisher. New York: Published by the *North American Review*, No. 30 Lafayette Place. 1882. Paper. Pp. 144. Price, 50 cents.

We are glad these articles have been thus brought together in convenient form for reference and preservation.

The Arkansas State Medical Society, sends out only its minutes for 1881.

Oregon State Medical Society, 1881. This small volume consists almost entirely of reports of special cases.

Massachusetts State Medical Society, 1881. This is the Centennial volume of this grand old society. It contains little of scientific value, but historically is of intense interest. The annual discourse is by J. Collins Warren, and consists of a history of medical societies, but especially of the American Association and the society of Massachusetts. The Centennial Address

occupies most of the book, and is a general review of medical matters connected with the history of the State from the earliest colonial days. The minutes of the meeting also contain a poem by Dr. O. W. Holmes, on the Character of the Physician.

Indiana State Society, 1881. The paper of Dr. Compton on Sanitary Progress contains a number of well-made points.

Dr. Commons has a report on Trichinosis, with details of several cases. He finds that sixty per cent. of the cases observed in the United States have proved fatal. Of his own four cases, three died; while of 972 cases which he has collated, only 73 were fatal, or about 8 per cent.

Dr. Waterman favors the use of the cold bath in the hyperpyrexia of pneumonia.

Dr. Dare regards quinine as purely an antiperiodic, its tonic virtues being *nil*.

Dr. Charles, of Carthage, gives us a most vigorous protest against the use of tobacco. He is specially earnest in an appeal against its use by the young. "Let me enter my strongest protest against the abominable custom of a youth, at the commencement of puberty, smoking. Boys often think it manly—that is, asserting their manhood—to smoke! The idea is perfectly absurd. Smoking, too, at this particular period, is especially prejudicial, and has driven many a youth, if he be so disposed, into a consumption; at other times it has brought on a succession of epileptic fits, which have not only endangered his health, but his very life itself. Stop that boy! A cigar in his mouth, a swagger in his walk, impudence in his face, a care-for-nothingness in his manner. Stop him; he is going too fast. He does not know his speed. Stop him, ere tobacco shatters his nerves—ere manly strength gives way to brutish aims and low pursuits! Stop all such boys; they are legion; they bring shame on their families, and become sad and solemn reproaches to themselves."

If there is any point to Dr. McMurray's paper on Heart Clot, it is hopelessly buried in the author's sesquipedalian verbiage.

Few scholars will care to read more than the first line of Dr. Haymond's long paper on Erysipelas, since he there informs us that the word "is a Greek compound, signifying 'to spread.'" The doctor is too rusty in his Greek.

Dr. King reports 240 cases of placenta previa: mortality of mothers, 22.50 per cent.; of children, 57.20 per cent. Other averages and percentages are given, for which we have no room. The paper is a very valuable one.

The volume is a good one, well gotten up, and the society seems to be vigorous and healthy.

CORRESPONDENCE.

THE THERMOMETER.

MESSRS. EDITORS:—I notice in your JOURNAL for March some reported cases of Small Pox by a physician at London, Ohio. Of the first he gives the temperature 113° , in what "looked like a mild type of remittent," but proved the prodrome of variola, and this during the day in a case that "remitted through the day." If it was 113° during the remission what was it in the exacerbation? And there was no special inconvenience from this heat, for the next morning the patient "felt almost well," and the temperature had gone down to 102° , under cinchonidia prescribed through error in diagnosis.

What country are you getting ready for in Ohio? "Can such things be and overcome us like a summer cloud without one special wonder!" The authorities will be compelled to change their teachings on temperature. For example, Flint tells us (*Practice*, page 114), "The range of the increase of heat in different febrile diseases extends to 110° . If the temperature indicate an increase to 108° , 109° or 110° , death is almost inevitable."

A thermometer is a good thing to have, and its information often very important; but sometimes we see it displayed for effect and with ludicrous and even serious results. A month ago I was called to see an unmarried lady who believed she had conceived. I asked if she had been exposed. "Only to Dr. W's instrument." "What instrument?" "A shiny little thing with a knob on it that he put under my tongue, under my arm, and in my ——" "What did he do that for?" "Oh! he said I had a remittent fever, and he wanted to see how hot it was." After trying in vain to remove the impression I recommended this patient to the asylum.

Osage City, Kansas, March 20, 1882.

SCHENCK.

HUMAN VS. BOVINE VIRUS.

MESSRS. EDITORS:—An article in your journal of this month by Dr. Beach on "Cases of Smallpox," recalled to my memory an experience I had about thirty-five years ago, which shows such a marked contrast in favor of humanized over bovine virus that I think it should be recorded. It was in November, in a township in Medina county, that I was called upon to vaccinate a family of six children, who had then been exposed for three days to the contagion of smallpox. These children were from nine months to thirteen years of age. The parents of these children had been vaccinated many years before, and at that time revaccination was not considered necessary. A woman with two small children came into this family from England, the children having had the smallpox on the vessel coming over. The

family to which they came were so unconcerned that they did nothing towards protecting themselves, and it was three days before the neighbors learned of it and sent for me. I vaccinated the six children, and, the roads being very bad and the distance considerable, did not see them again for a week. I then found that the vaccination had not taken in the infant, and again vaccinated it, and was astonished the next day to see how rapidly the vesicle was advancing, having made as much progress as those of the week before. Along with this came several variolous or varioloid pustules, but attended with very little fever, and the child did not suffer nearly so much as many I have seen this winter from vaccination with bovine virus. That no evidence should be wanting that it was the genuine smallpox that we had to contend with, the husband and father of the immigrant family, who had come to this country sometime before and was at work in an adjoining county, came to see his family, returned to his work, and was brought back sick in two weeks and died with confluent smallpox. He had never been vaccinated. Had I used bovine virus, uncertain as it is, especially in primary cases, I have no doubt that most if not all those cases would have had the dread disease. I fully believe that the time is not far distant when carefully selected humanized virus will again come into general use.

Cleveland, O.

J. C. PRESTON, M. D.

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THE STATE SOCIETY.

The following additional appointments have been made for the meeting of the Society :

Reuben A. Vance, M. D., Cleveland: "Surgery of the Arteries."

S. S. Thorn, M. D., Toledo: "Abscesses of Perineum."

John A. Murphy, M. D., Cincinnati: "Functional Disease of the Nervous System."

D. N. Kinsman, M. D., Columbus: "The Etiology of Consumption."

E. B. Pratt, M. D., Mt. Sterling: "Treatment of Inflammation of the Knee Joint."

C. A. Kirkley, M. D., Toledo: "Epithelioma of the Cervix Uteri."

Geo. A. Collamore, M. D., Toledo: "Report on the progress of Medicine."

Wm. Morrow Beach, M. D., London: "Achievements and Failures in the Medical Art."

Theo. Eichberg, M. D., Cincinnati: "Report on the Progress of Laryngology." (Volunteer paper.)

THE NEW YORK CODE AGAIN.—We have watched with much interest during the past month the comments of our editorial brethren of the medical press, on the new code which we published, with our own views, in our last issue. The New York *Medical Record* and the N. Y. *Medical Journal* both favor it; of course. With these exceptions we have not seen a single journal—from North, South, East or West—that did aught but condemn the action in no uncertain sound. And these utterances are the true index of the feelings of the profession. Fifty-two doctors at Albany, reckless of honor but greedy for gold, undertook to sell out the regular profession; but only succeeded in selling themselves—and very cheap at that.

The wise Confucius says: "He who seeks gold more than honor, is likely to lose both gold and honor." The fees which these men hoped for they will not get, while the honorable name which has been heretofore accorded to them is their's no longer. They undoubtedly thought they were great men, leaders; and some of us thought so, too; but now we find them small, very small. To err is human; we still hope that these men will reconsider the matter and again join with those who now, as ever, say to all adherents of dogmas—"with us compromise is impossible."

THE article from Messrs. Parke, Davis & Co., which occupies the last page of our cover in this issue, requires no comment. We are certain that the position of this house with reference to the medical profession is well understood and duly appreciated. They make no war against the legitimate use of the trade-mark, but simply against its abuse. We have noticed with pleasure the successful issue of their contest over the use of the word "Tonga" (the only known name of the remedy itself) as a trade-mark.

It must be encouraging and flattering to those fifty-two Dogberrys to read the following editorial comment in *The Investigator* (homeopathic):

"How wonderfully changed has the 'medical world' become since Dr. Quain threw the bomb into the camp of professional intolerance from the sick-bed of Lord Beaconsfield! Bread and butter has been at stake for some

time, and 'old school physic' was ready for surrender. All that was needed was for some 'general' to break the ranks and give himself over. *See how the rest of the sheep follow!*"

Some one ought to start a penny contribution for the purpose of furnishing those fifty-two with medals—leather, of course.

IN MEMORIAM.

The Licking County Medical Society being notified of the death of their brother member, Dr. T. H. Roe, a special meeting of the Society was called by the President. It was resolved to attend the funeral in a body. At the regular meeting of the Society, held at their room in Newark, Ohio, on Tuesday, Feb. 7, 1882, a committee was appointed, consisting of Drs. Rogers, Spencer, and King, to draft appropriate resolutions of respect. Also to give a brief sketch of his life and professional career. The committee made the following report, which was unanimously adopted:

Resolved, That in the death of our esteemed friend and brother, Dr. T. H. Roe, the profession has lost one of its oldest and most respected members.

Resolved, That we extend our heartfelt sympathies to the bereaved family in this their hour of trial and deep affliction.

Resolved, That a copy of these resolutions be presented to the family of the deceased, that they be spread upon our journal, and also be published in the Newark papers and the OHIO MEDICAL JOURNAL.

Dr. Thomas H. Roe was born in England in 1816. His father emigrated to this country at an early date, and located in Newark. His son, the subject of this sketch, formed a taste for the natural sciences at a very early age. He received a good preliminary education, and then entered the office of Dr. Dickinson, of this place, where he pursued his medical studies previous to attending lectures. He graduated at the Jefferson Medical college in 1840. For about two years after his graduation he was assistant to the Professor of Surgery in that institution. He was elected a member of several of the most prominent medical Societies of that city. Among these we might mention the "Academy of Natural Sciences." He received diplomas from the following schools: "Philadelphia School of Anatomy," "Physicians Hospital," "Philadelphia Military School." After remaining in Philadelphia for about two years, he returned to Newark, where he embarked on his professional career as a general practitioner of medicine. He was known however more as a surgeon than physician, having evinced a fondness for surgery from the beginning of his studies. He gradually rose to eminence as an *operative surgeon*, and was favorably known all over Central Ohio as a skillful as well as safe operator. He performed many difficult surgical operations which stamped him as a surgeon of no ordinary skill. He was contemporaneous with Drs. Dickinson, Brice, Wilson, Stanberry, Cooper, Marble, Barrows, Hamill, Vail, and some others, all of whom have long since passed away, Drs. Barrows, Hamill and Vail, being the only ones now living. He continued to practice his profession until a few years ago, when he retired from practice.

He died at his home January 31st, 1882, in the sixty-fifth year of his age.

THE OHIO MEDICAL JOURNAL

Vol. I.

MAY, 1882.

No. 11.

COMMUNICATIONS.

CLINICAL NOTES ON INJURIES OF THE EYE.

BY S. C. AYRES, M. D., CINCINNATI, O.

Abrasion of the Cornea. Hypopyon Keratitis.—J. J., aged 55, while breaking stone a few days ago, was struck on the cornea of the left eye by a minute fragment of stone. It produced a slight abrasion of the epithelium, but he did not consider it serious enough to interfere with work. He kept on as usual for two days, but the eye becoming more and more painful, he was finally compelled to desist. For a day or two he tried home remedies, but still the eye became more painful. When first seen the central portion of the cornea was quite hazy around the point of injury. The aqueous was turbid, and the iris discolored and very sluggish in response to light. In the bottom of the anterior chamber was a small collection of pus.

He was ordered atropia every two hours and hot fomentations all day long, and the eye to be bound up with cotton wool at night. Within two days the hypopyon disappeared, and the iris cleared up and responded to the action of the mydriatic. The pain ceased soon after he began the use of the hot fomentations.

In such cases the favorable influence of heat and moisture is very striking. They give relief from the pain and feeling of tension and are very grateful to the sufferer. In order to accomplish the best results the fomentations must be hot, not lukewarm. They may be discontinued as soon as the indications for their use have disappeared. Slight injuries of the cornea are very liable to be followed by serious results in laborers beyond the middle period of life. The power of resistance seems to be very much diminished, and complete loss of the eye by suppuration may follow an injury which in a young person

would give but slight inconvenience. In contrast with the above I will mention a case under observation at the same time. It was that of a **young** man, a stone cutter by trade, who was struck on the center of the **left cornea** by a small piece of stone. It partly imbedded itself in the cornea, **leaving** a small angle projecting. He went on for six weeks in this way, **suffering** only a slight scratching sensation in the upper lid. I found the stone **firmly** imbedded in the cornea and removed it with a spud. It was nearly as large as a pin's head, but had remained there all that time without exciting any inflammation of the cornea around it.

Some years ago I saw a case of an old man who, while picking a mill-stone, was struck in the cornea by a minute fragment of stone. It was neglected, as is generally the case, and when he came for treatment the entire cornea was suppurating.

A little care on the part of the patient might avert many of these disastrous results.

The treatment is simple enough. The foreign body should be removed and a drop of castor or sweet oil applied to the cornea. It will relieve the scratching sensation until the epithelium is reproduced. It is well to bind up the eye for a day or two, and if painful apply cold water externally.

Rupture of the Eye by an Arrow.—J. R., aged 12, was struck in the right eye by an arrow, which inflicted a severe wound and caused almost immediate loss of vision. The eye was carefully bandaged and cold compresses applied. These had been continued for about a week when he first came under my observation. I found that there was a ragged wound extending from near the center of the cornea directly inwards to the ciliary region on the sclerotic. There was a large prolapse of the iris, which was a constant source of pain and irritation. The lens was opaque and considerably swollen. The ball was exquisitely sensitive and the tension very much diminished.

The first thing to be done was to remove the prolapsed iris and give the wound a chance to heal. Under the influence of an anesthetic this was easily accomplished, and it was not long before there was an amelioration of all the symptoms. The eye became much less tender to touch, and the irritation of the sound eye (left) greatly diminished. The inflammation in the injured eye subsided in a few weeks. There is an indrawn cicatrix marking the line of the original injury.

In case of prolapse of the iris, the eye should receive prompt attention and the prolapse be replaced or abscised. In this case it made no difference as to the final result, for the eye was fatally injured from the first, but it might make a great difference in less serious accidents. In a punctured or incised wound of the cornea not involving the lens, followed by a small prolapse, there should be no hesitation in abscising the iris if it is causing any undue

irritation. Where the protruding sac formed by the iris fills with aqueous, it is sometimes sufficient to puncture it with a needle and evacuate its contents. After pricking it collapses and for a time ceases to be a source of irritation. But the aqueous may again fill the sac and thus necessitate repeated punctures. Or the sac may remain collapsed and in time slough off and disappear. This removes the external source of irritation, but not that of the imprisoned iris. Such cases frequently lead to secondary glaucoma and subsequent destruction of the eye.

Splinter of Wood Imbedded in the Cornea.—T. M., while sawing, had the misfortune to have his right eye injured by a small splinter of wood thrown from the saw. It penetrated very near its center and broke off so close to the corneal surface that it was impossible to seize it with forceps. It was long enough to go almost through the thickness of the cornea. Attempts to remove it had been made, but they only served to break small portions of it off and thus make it more difficult to extract. After convincing myself that a spud or sharp-pointed instrument could not remove it, I decided to cut down on it in the following manner: The eyelids were held open with the spring speculum and then, after fixing the ball, I made a horizontal cut across the cornea, aiming to cut down upon or very close to the splinter, and at the same time not to evacuate the aqueous. In this I succeeded, and exposed a portion of the splinter so that I could remove it easily with a pair of fine forceps. This was quickly done, and with less pain to the patient than the attempt to dig it out with a spud would have given.

Traumatic Cataract.—S. W. H., aged 11, was struck near the center of the right cornea with an arrow into the head of which a needle had been inserted. The needle penetrated the cornea and lens, causing a small opening in its capsule, but fortunately not involving the deeper structures.

As the boy was suffering but little or no pain, and there was no increased tension, he was ordered a solution of atropia and allowed to return home, with instruction to report in case the eye became painful. The danger in such cases is from the rapid swelling of the lens and the consequent glaucomatous hardness of the globe. Relief from this condition is obtained by a paracentesis of the cornea, which will allow the soft lens substance to flow off. Here it was not necessary, and the atropine was persisted in until the lens had become absorbed. There was then a small clear opening in the capsule, through which he could read ordinary print with the proper correcting lens.

Traumatic Cataract and Prolapse of the Iris.—H. F., aged 19, while chopping wood six days ago, was struck on the upper portion of the cornea with a chip, which inflicted a crescentic wound and caused a prolapse of the iris and traumatic cataract. The iris was found protruding through the wound and causing considerable pain. The lens was very much swollen

and almost filled the anterior chamber, and the tension of the ball was decidedly increased. After the insertion of the spring speculum, I seized the iris with the fixation forceps, drew it out freely and cut it off close to the cornea. Then with a blunt probe I sprung the original wound in the cornea and allowed the soft lens substance to flow off. This relieved the intraocular tension, and with the removal of the protruding iris rendered the eye much more comfortable. Absorption went on quietly, and the young man gained a fair amount of vision. There is a great advantage in seeing these injuries early, before the iris has become firmly agglutinated to the edges of the corneal wound, for it is then still elastic and can be drawn out without difficulty.

Traumatic Cataract and Prolapse of the Iris.—F. M. has traumatic cataract of the right eye, caused by an injury inflicted by a nail striking his eye. His brother was driving it and he was standing near so that it was a glancing wound. There was a small prolapse of the iris, and the anterior chamber was filled with blood. The iris was immediately drawn out as far as possible and cut off close to the cornea, and cold compresses ordered. The blood was soon absorbed so that the lens could be seen. Atropia was ordered and cold compresses used for several days. He made a good recovery.

Piece of Glass Encysted under the Conjunctiva.—Mr. B. S. B. gave the following history: Nine years ago he was shot in the face with a pistol which was loaded with powder and a large wad of paper. His face was dotted with grains of powder, but the eye was not seriously injured at the time, and he soon recovered and experienced no trouble until recently.

There is now considerable swelling of the lower lid, the conjunctiva is edematous, and there is tenderness to pressure, particularly outwards. Upon drawing the lower lid down, I saw what appeared to be a small foreign body projecting from the conjunctiva. It was smooth and hard, and so firmly imbedded that I could not displace it with a spud. I then slit the conjunctiva up a short distance, and exposed and removed what proved to be a piece of glass which had become encysted. It was 3-16 of an inch long and 1-16 broad. It had been there since the pistol accident nine years previously, and had probably been in the powder or wrapped up in the paper wad.

INVERSION OF THE HUMAN BLADDER.

BY REUBEN A. VANCE, M. D., CLEVELAND, O.

Professor of Operative Surgery and Clinical Surgery in the Medical
Department of Wooster University.

In 1877 a case of inversion of the bladder came into my hands, and the patient wellnigh fell a victim to an erroneous diagnosis on my part. Upon investigation, I learned that others had encountered similar cases, and that

I was not the only one who had been misled by them. A history of my patient appeared in the *American Journal of the Medical Sciences*, for October, 1878, and in February, 1879, I gave a detailed account of the recorded cases of this lesion in the *Medical and Surgical Reporter*, of Philadelphia, Pa. The subject of vesical inversion is one that requires more careful investigation than it has yet received, for, judging from the tenor of the correspondence developed by the articles I have written on this topic, there is good reason to believe that this lesion is by no means so rare as is generally thought. Judging from my own experience, I can readily imagine how thoroughly one unacquainted with this condition, could be deceived by it—how, even, a ligature might be applied to the so-called “polypus,” death occur before the separation of the growth, and the patient be buried without the practitioner suspecting an error of diagnosis. It has happened to more than one physician in the south and west to ligate tumors of the urethra with fatal results, and under circumstances where a *post mortem* examination was impossible—operations performed without a thought as to vesical inversion, for the very sufficient reason that surgical authorities gave no hint that such a condition could occur. Once let the operator know that in the female—especially female infants—the bladder can be inverted, and all possibility of future error is removed. In order to contribute to the diffusion of a knowledge of this lesion, I have condensed and abbreviated the recorded cases of inversion of the bladder, and now detail them in the order of their occurrence.

In the earliest, reported by Dr. Murphy in the *Liverpool Medical Gazette*, 1833, the patient was a four-year-old girl; a pyriform tumor, the size of a hen's egg, projected from between the upper portion of the labia pudenda, base below, apex above; on raising it the vagina could be seen, but the meatus urinarius was not visible; slight downward traction of the tumor—which was of a dark mahogany color—exposed the orifices of the ureters. The re-inversion of the bladder was readily effected by steadying the neck of the tumor and pushing up its base with the end of a gum-elastic catheter.

Mr. Crosse's case, in the *Transactions of the Provincial Medical and Surgical Association*, for 1846, is briefly as follows: In a healthy looking female child, between two and three years of age, a tumor the size and shape of a walnut, projected visibly between the external labia. It was of a florid red color, somewhat granulated on its surface, giving it the appearance of a strawberry. Towards the posterior part of the tumor and on its sacral aspect, was an aperture, supposed to be the displaced urethral orifice—a small female catheter could be passed through this opening into what seemed to be the bladder: urine dropped from the catheter when thus introduced. Subsequently a second opening was discovered—these apertures were then recognized as the orifices of the ureters. The tumor was easily returned by pres-

sure, and the canal through which it retired was found to be the urethra dilated sufficiently to admit the little finger. Mr. Crosse, by discovering the second ureter, convinced the surgeon in charge of the case that the tumor was an inverted bladder, and not a vascular growth, and prevented the application of a ligature. The treatment was satisfactory, and the cure was permanent.

Dr. Beatty, in the *Dublin Quarterly Journal of Medical Science*, August, 1862, records a case of complete inversion of the bladder of ten months duration, in a girl aged 22 months. A tumor the size of a chestnut protruded between the labia: it originally followed a fit of crying when the child was twelve months old. The tumor could be forced back and replaced by the finger introduced through the urethra. The child died of croup while under observation in the hospital, and before any operative measures could be taken.

In the *Lancet*, of March, 1862, a case of congenital inversion of the bladder is recorded by Dr. Lowe. The patient was a girl aged two and a half years, and the bladder formed a vascular tumor as large as a walnut between the labia. When the child cried, the tumor became injected, and increased in size—at the same time a gush of urine took place. The mass was seated at the orifice of the urethra; on making a little gentle pressure the tumor receded under the finger and disappeared within the urethra—the fore finger could then be readily passed into the vesical cavity. Inversion of the bladder was diagnosticated. The mother said the child had incontinence of urine from birth; that when two or three days old a small substance protruded during crying; and that every straining effort was followed by a flow of urine. The thighs and labia were much excoriated, and the latter, as well as being swollen and indurated, were covered with pustules. Until two years old the tumor receded, when the straining ceased—latterly it has protruded constantly. Treatment, the actual cautery at intervals for eleven months. Result—some degree of incontinence, but no return of tumor.

Mr. Henry Johnston reported the following exceedingly interesting case of inversion of the urinary bladder during pregnancy, in the *Dublin Hospital Gazette*, April 16, 1860. August 8th, 1859, he was called to Mrs. M., aged 20, threatened with a miscarriage. Found her suffering from "pains," and such an amount of tenesmus that she wanted to remain constantly on the night chair. Was told that there had been great "hemorrhage," and that the "waters" had discharged yesterday; she was nine months married and thought herself four months pregnant. There had been vesical irritability for weeks, but she did well till the 6th, when after lifting a box, she felt great uneasiness in her back, attended with frequent and urgent desire to pass water. The symptoms were aggravated on the 8th; she was unable to retain urine, vomited freely and was at ease only when on the night-chair.

Was on the night-chair when the reporter first saw her on the 8th. On attempting a vaginal examination she complained bitterly of pain. On visual inspection, a soft fluctuating tumor was found, the size of a pear, pyriform in shape, extending as far down as the ostium vaginae, and feeling like a bag of membranes. His finger passed from the base along the narrow, neck-like portion of the tumor into a small cavity which he considered was the dilated os uteri, being also under the impression that the narrow, neck-like portion of the tumor was the cord attached to the ovum. He followed the cord into what he presumed was the cavity of the uterus. The patient insisted on being allowed to remain on the night-chair; general directions were given and she was left for the night. On the 9th she was found to have slept none during the night, frequent attacks of vomiting, pulse rapid and excited. An anodyne was administered, and with the assistance of Dr. Bryce, an examination was made. Dr. Bryce found he could pass his finger behind the tumor into the vaginal canal, where he found the os uteri still undilated. The tumor was found to yield to gentle pressure and to retire upward through the cavity once supposed to be the os, into the cavity formerly imagined to be that of the uterus. As the tumor retired, a quantity of urine was discharged. The true nature of the case was now manifest—the bladder was seen to be inverted. Immediate relief followed the reposition of the inverted bladder: vomiting ceased, the pulse fell, the patient's oppression changed, and sleep ensued. On the 10th blood and mucus were still voided from the bladder, and urine still flowed despite the efforts of the patient, yet she was quite easy in body and mind. Finally, under treatment, even the above symptoms subsided, and when the patient passed from Mr. Johnston's care in December, 1859, she was free from vesical uneasiness, and looked to an early confinement.

Mr. Johnston says that the late Professor Simpson called his attention to two cases of inversion of the bladder, reported in Cruveilhier's *Pathological Anatomy*. He also spoke of Dr. Meig's case. (See the latter's *Diseases of Women*.) This was a case of vesical inversion in a little girl of three, in which the nature of the "growth," was not recognized until all the preliminaries for an operation to remove the tumor had been arranged.

The following is an abstract of Mr. Croft's case: May 28th, 1880, Mr. C. was informed that a tumor of the vagina in a little girl had burst and was bleeding. Hastening to his out patient's room, at St. Thomas', he found a little infant in a sad plight. The sufferer—but fourteen months old—was crying and struggling; a red, vascular pear-shaped tumor projected from between the labia. The mass was the size of a walnut, and, according to the mother, had been down for four hours. On careful scrutiny, Mr. Croft decided that it was neither a polypus nor a solid tumor, yet its surface was covered by mucous membrane, very similar to that lining the bladder. The

tumor was tense with fluid. On moving the mass from side to side, the vaginal orifice and hymen were recognized posteriorly, but the lateral attachments were difficult to uncover. He was in the act of inserting his little finger into the anus, when, during a violent struggle, the tumor burst, from a tiny spot on its front aspect a fountain of clear, straw-colored serum played for a few seconds and then the tumor partially collapsed. A small clot of blood formed at the seat of rupture. The mucous character of the surface was now apparent. The orifices of the ureters were not seen, but the sac was not drawn down so as to expose them. The sac speedily refilled and the struggles of the infant again emptied it as before, and this occurred again and again. Some of the fluid was thus secured for examination. Meanwhile chloroform was administered. Then, under equable pressure the partially reduced sac was still more reduced, and finally became so small as to readily enter the meatus urinarius externus and pass along the urethra. Mr. Croft did not follow the retreating tumor with his finger, but passed a director into the urethral canal; this moved freely as though in the bladder. He had no further doubt that the case originally was one of bladder turned inside out, through the meatus. The mother said that the tumor had been down for four hours, and that it had been noticed more than once before. Three days back it had been down half an hour, but retired during sleep. She had observed a difficulty in urination and dribbling, during two months, the child's bowels were habitually costive. The patient was admitted under the supposition that the inversion would return, or that the bladder had been ruptured while inverted and that mischief might radiate from the lesion. No bad symptoms ensued; the child was removed on the third day. In July, 1871, the mother reported no relapse of the inversion; but that occasionally dribbling occurred, and sometimes during coughing or sneezing, a gush of urine took place.

The following are the details of my own case just as reported for the October, 1878, number of the *American Journal of Medical Sciences*.

My attention was first called to the following case by the father of the patient, who called on me for advice in November, 1877. His account was so obscure that I did not suspect the nature of the case, and declined to prescribe until I could see the patient. On Dec. 7th, he returned with his wife and the infant. When the genital organs of the latter were exposed, a small purplish-brown tumor, the size of a small hen's-egg, was revealed, which, on closer examination, was found to spring from the upper and inner margin of the vulva, and seemed to originate from the external orifice of the urethra. Externally the tumor was pear-shaped, and when compressed between the fingers, was elastic and resistant. It could be elevated without difficulty, thus exposing the lower part of the ostium vaginae, and when lifted away from the body in this way, its pyriform shape was exceedingly

well marked. On using a probe to determine the relation of the tumor to the urethra, the orifice of the latter was found to encircle the neck of the former. That is, the probe revealed no attachment between the neck of the growth and the walls of the urethra, for a distance of nearly two inches. The probe, while free to enter thus far above, below, or on either side of the tumor, could not be made to pass further into the bladder. At this point in my examination the child cried violently, and at each gasp the tension and prominence of the tumor could be felt to increase. Desisting temporarily from my exploration, I noted the following points in the history of the case: The infant was then in her twenty-second month, and had suffered from dribbling of urine since she was a year old. The constant flow of this excretion caused excoriation of the lower part of her body and the inner aspect of her thighs, and necessitated frequent change of napkins. Shortly after this symptom developed, the mother observed something filling up and projecting from the water-passage. Watching daily, she soon convinced herself that the baby's incontinence of urine arose from something growing out of the urethra, and she consulted several physicians as to the nature of the growth. From the physicians she learned that polypi grew from such places, and it was with the view of having the polypus removed that her husband originally came to consult me. The mother also said that she had passed a wire (a knitting-needle) into the urethra when exploring the parts; that it invariably made the baby cry, and crying caused the tumor to enlarge and protrude. In October, 1877, she saw that a small part of the growth projected even when the child was quiet; and shortly afterward, when endeavoring to trace the extent of the growth, the child became excited, screamed violently, and bore down with such force that the tumor suddenly enlarged to its present bulk. At times it suddenly diminished to the size of an acorn, but it never resumed its former small dimensions, and never receded within the urethral canal. While the mother was detailing these facts, the child gradually ceased sobbing and crying—it had screamed incessantly from the moment the parents first started to expose the diseased part—and this, too, while I continued to manipulate the growth and adjacent structures. As the child grew quiet, the tension and prominence of the tumor seemed much less than before, and this change in the character revealed to the sense of touch was accompanied by a decided alteration in color. From a purplish-brown hue, the growth changed to a yellow tint. Also, an indistinct feeling of fluctuation attracted my attention to the part and as I renewed my examination, the child again commenced to scream and cry. The tumor at once grew tense and hard, and became of a deep purple color. Whatever trace of fluctuation there might have been before disappeared with the first forced expiration. Quite a quantity of fluid bedewed the parts, and as I had no other thought than that it came from the meatus urinarius, I neglected to search for any

other origin. Requesting the mother—who was supporting the child in a semi-erect position before me—to quiet the babe, I explained to the parents my idea of the case: That the tumor was a polypus developed from the mucous membrane of the urinary passages at some point near the junction of the urethra and bladder; that it was the growth of this tumor that caused the incontinence of urine; and that the regular flow (dribbling) of urine they now saw depended upon relaxation of the urethra and contraction of the bladder. Contraction of the vesical walls accounted for the fact that the probe passed but two inches from the meatus—a condition due to the dependent position of the tumor—and the fact that it rendered the urethral canal patent, thus permitting urine to escape the moment it entered the bladder. I advised an operation and explained the procedures necessary for passing a ligature around the neck of the growth, near its origin. In order to determine the attachment for the tumor I had the parents support the child while I examined the parts through the rectum. Passing my right forefinger to its full extent into the rectum, I investigated the attachment of bladder and urethra—a method of examination peculiarly available in infants. Inserting a female catheter into the urethra I grasped the base of the tumor, at the same time carrying the finger in the rectum toward the super-pubic region. Despite the fact that the child was screaming its loudest and struggling with all its might, the tumor, ordinarily tense and resistant under such circumstances, became suddenly so soft and yielding that I directed the father to so move the child's hips that I could see the growth. To my surprise I found my fingers had indented the tumor as they would a soft rubber ball. Releasing the catheter I grasped the growth with my left hand, and as I compressed it, it slowly collapsed and receded within the urethra, and as it disappeared externally, my finger in the rectum could feel an increase in the bulk of the structures in the vesical region. At this time the child's hips were elevated above its trunk; directing its father to lower still further its head and shoulders, I elevated its hips as I compressed the slowly diminishing growth. Finally, as the last of the tumor entered the meatus I followed it with a catheter, and found no difficulty in entering the latter between three and four inches. While the child was kept with its shoulders depressed and hips elevated, I made a careful inspection of the urethra, and found the canal greatly enlarged—enlarged so that I could insert the first phalanx of my little finger into the meatus—and its tissues so relaxed that they scarcely contracted upon my finger. My first idea, that the tumor was a polypoid growth from near the junction of the urethral and vesical cavities, was no longer reconcilable with the facts. Despite its seeming impossibility, the only tenable surmise was that the bladder had been turned inside out. The impossibility of inserting a catheter while the tumor protruded, together with the absence of evidence of vesical distension, or even of the presence of that

organ in its proper position, and the continual dribbling of urine, contrasted with the ease with which a catheter could be inserted when the tumor was reduced, the immediate development of such tactile phenomena as denoted the return of the bladder to its position, the complete disappearance of the tumor, and the sudden cessation of urinary dribbling, were arguments that could be answered in no other way than by supposing the bladder to have been inverted. I at once explained my change of opinion to the parents, and inquired closely into the previous history of the case. The mother was certain the mass had not receded within the meatus since October. When I enquired about the child straining in defecation, etc., they informed me that nothing was thought of the first development of urinary incontinence, for the child was suffering from whooping cough, and coughed with great violence. I imagine the parents were surprised at my sudden change of opinion, but when they learned that no operation would be necessary, they were not disposed to be critical. The child had no return of its trouble. I saw it in 1878, and again in January, 1882. On the last occasion it was within less than a month of its sixth birth-day, and its mother stated that for four years it had been free from incontinence of urine, and that since the day the inverted bladder was returned there had been no further evidences of vesical protrusion.

The following case, communicated to the *Philadelphia Medical and Surgical Reporter*, for July 5th, 1879, by Dr. A. Langworthy, of Greenwich, New York, is worthy to rank with Mr. Henry Johnston's example of vesical inversion during pregnancy. The patient, a married woman with grown-up children, suffered from uterine disease and pulmonary tuberculosis. Dr. Langworthy was called to see her in the summer of 1876, and decided her disease to be mortal. A week subsequently he was again sent for—this time because the patient thought "everything was coming down out of her." An examination revealed a tender, angry, irritable, blood-red tumor covering the vaginal opening. A polypoid growth was thought to be present, and a day was set for its removal. The following Sunday the tumor was again examined. The growth was globular; it sprang from the urethra; and its surface was covered by what seemed like concentric rings. While engaged in studying its appearance, the Doctor determined to test its resistance to compression: a Sims' catheter was placed against its center and gently pushed towards the bladder; in a moment it became inverted, collapsed, and returned within the urethra, and its recession was followed by a sudden gush of urine: the diagnosis was plain—the case was one of vesical inversion, and the Doctor's manipulations had sufficed for the return of the bladder to its normal position. So far as the vesical complication was concerned, no more trouble was experienced; the pulmonary disease, however, ended the patient's life within a very few months.

In this connection it would, at first glance, seem desirable that some attention should be devoted to the situation and attachments of the bladder in order to determine the peculiar anatomical condition of that organ which renders it subject to inversion. A little reflection will convince the student that cases of vesical inversion are so rare, and those antecedent conditions alleged to exercise an influence in their development, so very common, that the number of examples of the former must be vastly augmented before conclusions of any value can be drawn from their comparison. No such objection can be made to the light the above cases cast upon the symptomatology of *Inversio Vesicæ*. The following are the main symptoms in such cases: A tumor from the anterior part of the ostium vaginæ situated beneath the clitoris and between the labia which is pear-shaped, red, vascular and elastic; the urethra not apparent, but both ureters may be seen and a prolonged inspection will show urine distilling from their orifices; together with a history of urinary incontinence preceding as well as accompanying the advent of the tumor.

The treatment of vesical inversion requires but little attention. The indications are to return the protruded viscus and prevent its reinversion. Every practitioner, before resorting to operative measures for the removal of any growth that could by any possibility be confounded with inversion of the bladder, should make a special examination to satisfy himself that vesical inversion has not occurred. This step will prevent any mistake, and simply necessitates the introduction of the catheter.

A CASE OF CEREBRAL HEMORRHAGE.

BY L. WOODRUFF, M. D., ALTON, O.

Mr. F., a German, aged 42 years, of previous good health and temperate habits, went to bed Dec. 24, 1881, in his usual health and spirits. On the next morning he was found by his wife in an unconscious condition and breathing heavily; from this he recovered in a short time, and at noon of the same day had a convulsion. I did not see him till the convulsion had passed off and consciousness was restored. He complained of severe pain in the back of the head; temperature normal; pulse 60 and feeble; slight nausea, and had vomited once; tongue protruded without any deviation whatever, and with as much vigor as in health, clean and moist; vision good and no intolerance of light or sound. Giddiness was present whenever the patient assumed the erect position; no impairment of sensation or motion.

Ordered a warm pediluvium, applied a blister to back of neck, and gave a brisk cathartic. Saw him again in the evening. Cathartic had operated, and pain was somewhat relieved; temperature, 100°; pulse, 80.

I had him under observation for a week afterwards. For several days he was unable to sit up without dizziness and a feeling of faintness. There being no previous history of epilepsy, I was impressed that the cerebral trouble was of unusual gravity, and was probably due to some intra-cranial organic change; possibly to some adventitious growth or deposit in the brain. Gave him bichloride of mercury, in doses of 1-12 of a grain three times a day, and full doses of bromide of potassium to relieve headache. After a week or ten days he was able to be around and attend to his business, but was not able to work much on account of muscular weakness and dizziness.

After ten weeks, on March 4th, I was again called, and found him with intense pain in the top of the head, with which he had been seized during the night previous. He had, however, had more or less headache daily ever since the convulsion of the 25th of December. Temperature slightly below normal; pulse, 46; slight vertigo and tinnitus aurium; had some nausea and had vomited once.

The pain in the head continued to be violent, paroxysmal, and confined to the top of the head, no relief whatever being afforded by any remedy employed. He had occasional intervals of comparative ease, to be followed by even more severe pain than before; and even when under the influence of full doses of anodynes, the most severe paroxysms would occur. The temperature remained normal; pulse, 46 to 56; respiration, normal, and mind clear.

On Sunday, March 12th (the ninth day of this attack), Dr. Wirth, of Columbus, was called in consultation. He recognized the gravity of the symptoms, and diagnosed a probable hematoma. He advised the addition of five grains of iodide of potassium, three times a day, to the mercury, and the exhibition of full doses of chloral with morphia to procure sleep and relieve pain. Half a drachm of chloral, and 1-4 of a grain of morphia procured some sleep, but while asleep the patient manifested signs of severe suffering from pain in the head.

On Tuesday there was some confusion of thought, and on Friday, four days before death, there was low muttering delirium, involuntary discharges of feces and urine, slightly heightened temperature, and increased frequency of pulse. Up to this time the pulse continued slow, 46 to 56. On Saturday he became comatose, which condition deepened as time wore on, manifestations of pain in the head still being observed.

Careful tests of the urine were made, but no albumen or casts were found. The urine was heavily loaded with the phosphates, which I believe is common in all brain and nervous diseases. The heart sounds were natural.

The vital forces gradually failed, pulse gaining frequency and losing force,

until Tuesday, the 17th day, when he died. Unfortunately we did not have an ophthalmoscope so as to examine the optic discs, and were therefore deprived of the valuable means of diagnosis relied on by Dr. J. Hughlings Jackson.

Autopsy, 53 hours after death. Unnatural fullness of the superficial vessels of the brain. A quantity of serum in the sub-arachnoid space and in the longitudinal sinus. On removing the brain, a clot, with fluid blood, estimated to be equal to four or five ounces, was found in a cavity produced by laceration in the substance of the right middle lobe. Extensive non-inflammatory softening surrounded the cavity, involving almost the entire lobe. We were not permitted to examine the heart.

Remarks: Occasionally grave cerebral diseases are surrounded with so many insurmountable difficulties and perplexities that the most skilled neuropathologist may be greatly at fault in making a correct diagnosis. The peculiar feature of the case I have reported is the entire absence of certain symptoms which are generally recognized as characteristic and pathognomonic of true apoplexy. Notwithstanding the great intra-cranial tension, which must have existed in consequence of the presence of the large extravasation, the symptoms of compression were not prominent. Nausea and vomiting were merely nominally present, and not sufficient to annoy the patient or otherwise claim attention. The large clot, the extensive destruction of nerve tissue, the extensive softening, and the squeezing of the parts not directly damaged, would lead one who was not familiar with the clinical history of the case to suppose that there must have been great paralysis. Yet there was no paralysis in any part or degree; the pupil was natural throughout, and responded promptly to light. In all the literature of the subject at my command, I find nothing so satisfactorily explaining the absence of paralysis and other symptoms of compression, as the following extract from Rosenthal's *Clinical Treatise on the Diseases of the Nervous System*, in Wood's *Library of Standard Medical Authors*, for 1879. "In hemorrhages into the middle lobe, with integrity of the ganglia, I have twice observed headache, dizziness, slight nausea and amblyopia, without any affection of motion, sensation, or of the mental faculties."

Query: Did the softening exist primarily, and was it therefore the cause of the hemorrhage, or was the softening the result of the laceration and pressure of the extravasation?

I ought to have stated, in the proper place, that three or four months before the convulsions of the 25th of December, the patient fell down while walking in his door-yard, and was for a few minutes unconscious, and was afterwards surprised to find himself on the ground. This was probably a premonition, or fore-runner, of his subsequent attacks, and was likely caused by a very slight hemorrhage, or the giving way of softened brain tissue.

TERTIARY SYPHILIS OF THE THROAT.

BY THOS. H. HAMMOND, M. D., KICKAPOO CITY, KANSAS.

Mrs. H., widow, thirty years of age, came to me having a tumor over the lower portion of the thyroid cartilage, crico-thyroid membrane, and cricoid cartilage, just to the left of the median line, about the size of a man's thumb. She was a little hoarse. She professed to believe that her trouble was scrofula.

The laryngoscope revealed a tumor just beneath the anterior attachment of the left vocal cord. It had no pedicle, but a broad base where it rested upon the tissues, and I could see its regular, smooth, convex surface when the vocal cords were widely separated. Its color was that of the interior of the larynx.

She did not give a syphilitic history, but I put her on moderate doses of iodide of potassium, and the tumors disappeared rapidly. This, to my mind, demonstrated their syphilitic nature. I endeavored to impress upon her the importance of continuing treatment for some time, and of resuming it at the least appearance of a return of the disease. As she had no more trouble, however, she considered herself well, disregarded my instructions, and I saw no more of her for four or five months, when she returned. She was now very hoarse, and greatly alarmed lest she should lose her voice entirely. The tumor had returned to a slight extent over the crico-thyroid membrane. There was no tumor to be seen within the larynx, but on the upper surface of each vocal cord, near its middle, there was an ulcer. Each ulcer was of about the length and shape of a half grain of wheat, the grain being split lengthwise, and when the vocal cords were brought together in phonation, the two ulcers formed, as it were, a full grain.

That distinguished laryngoscopist, Dr. Thos. F. Rumbold, of Saint Louis, also examined her throat several times with the laryngoscope.

The treatment that I put her upon was fifteen grains of the iodide of potassium four times a day, and one-sixteenth grain of bichloride of mercury, the mercury being given in the muriated tincture of iron.

Under this treatment the ulcerative process was arrested; the ulcers began to heal; the tumor over the crico-thyroid membrane diminished in size for a time, and I hoped for its complete absorption, but after a while it began to soften and seemed to contain some fluid. I then punctured it and it discharged a few drops of a thin fluid, a little colored with blood.

I had not the satisfaction of observing the case to its termination. She passed from my hands, blaming me greatly because the druggist told her that I was giving her the "strongest kind of mercury." One physician doubted the propriety of giving her mercury, as the case was one of tertiary syphilis, but Bumstead gives it in tertiary laryngeal syphilis, the better to

prevent the return of the disease, giving iodide of potassium to arrest the destructive process. In such cases I prefer the bichloride in small doses, continued for some time.

It is sometimes necessary to give the iodide of potassium in very large doses in these cases. Dr. Van Buren gives a case of tertiary syphilis affecting the throat, in which *two ounces* were given daily before the destructive process was stayed, and he lays down the rule that in tertiary syphilis the dose of this salt should be increased till the symptoms yield or the patient's stomach rebels, when the dose should be slightly diminished.

The tumors were no doubt gummy, and treatment by the iodide of potassium is ordinarily highly satisfactory, as they are promptly absorbed and disappear. If they are not treated they break down and the tissues are destroyed.

CORRESPONDENCE.

THE NEW YORK CODE.

EDITORS OF OHIO MEDICAL JOURNAL:—The question of consultation with "Irregulars," especially homeopaths, which is at present agitating the medical mind, ought to, and probably will, receive the fullest possible discussion. I read the editorial by W. J. C., in the March number of THE JOURNAL, on "The New Code of Ethics," with much interest; but must take the liberty of differing with him on one or two points.

In the first place, it is evident that nothing so effectually boosts homeopathy into popular favor as the opposition (frequently undignified) and abuse from the regular profession. The public is very much inclined to sympathize with any one who appears to be persecuted, and the opposition of the profession toward the disciples of Hahneman has frequently been of the nature of persecution. This latter has done the homeopaths much good, and the regular profession much harm. It will no longer do to say that all homeopathic practitioners are knaves or fools, and the sooner the regular profession discountenance the use of such epithets towards their *irregular* brethren, the more credit it will receive at the hands of the public. People know that they are not all fools or knaves, and we know it also. The believers in infinitesimal doses are undoubtedly mistaken, but some, I know, as Bristowe said he knew, to be honest in their belief.

Such being the case, is it true, as W. J. C. says, that "Scientific medicine cannot hope to be benefitted by affiliation with the isms and pathies of the day?" On the other hand I would ask: Can scientific medicine de-

rive anything but benefit from such affiliation? How can she show the superiority of her methods better than by trying them in cases in which homeopathy has failed? If the regular profession stands off and refuses to have anything to do with irregulars, except to heap abuse upon them, how can the public be able to compare the relative efficiency of their methods in the treatment of disease? If the claim of scientific medicine, that its methods are superior, is true, it will be by such consultations that she will be able to establish the truth of this claim.

The first requirement of a consultation is the establishment of a diagnosis. This task can be entered upon with no difficulty by the homeopathist and regular. They use the same diagnostic means and aids. The diagnosis being made, W. J. C. would then ask, "Shall the regular practitioner give up his convictions and become responsible for a line of treatment of which his conscience cannot approve?" By no manner of means; and here is just where scientific medicine will strengthen public confidence in her, in every such case, if she deserves such confidence. I would have the consultant mark out his line of treatment, and then insist that he will continue to have no further responsibility in the case unless this line of treatment is carried out to the minutest detail. I know a physician who practices scientific medicine. He is an intelligent, progressive, and honorable practitioner in every sense of the word. But he has frequently consulted with a homeopathist, who, nevertheless, is a gentleman. But every time he has done so, after making his diagnosis, he has indicated the line of treatment which he favors, and has then said in effect, "Now that is the treatment which I must insist upon, and it must be carried out in full, or I will not continue in the case." On every such occasion his treatment has been fully carried out, with benefit to the patient. On every such occasion, also, scientific medicine has met with a victory, and homeopathy has met with a signal defeat.

It does not seem to me to be necessary that the attending homeopathist should understand or appreciate the reasons for the plan of treatment, in order that it can be carried out to the patient's benefit. He can carry out plain directions in regard to treatment as well as, if not better than, the friends of the patient to whom we constantly entrust the carrying out of our directions in almost all cases.

Of course, I agree with W. J. C. when he says that "one or the other of the consultants must give up his convictions," but it need never be the disciple of scientific medicine. When the homeopathist asks for a consultation with a regular physician, does he not, by that request, virtually admit that he will give up his convictions, and avail himself of the methods of scientific medicine?

So far as honesty and good character are concerned, there is just as much difference between the so-called irregulars as between the regulars. Of

course, I think we should be just as careful in informing ourselves as to the character of the irregular who asks for a consultation, as we should be if the request come from a regular.

It is unnecessary for me to say that I advocate consultation with none but honorable gentlemen.

I cannot imagine a case where a regular physician would call a homeopathic physician in consultation, so that such a contingency need not be discussed. When it comes to a case where the friends wish a regular physician in charge to call in a homeopathist, I agree with W. J. C. that the former could do nothing but decline. If he were to consent he would be virtually agreeing to use homeopathic methods, if necessary. This he could not do, without giving up his honest convictions.

In conclusion, I think as does W. J. C., that the profession of the country, *at present*, will discountenance the action of the New York Society. I say *at present*, but I fully believe it is only a question of time when the profession will fully endorse the action of the New York Society, and that the sooner it takes this step the better will it be for scientific medicine.

Washington C. H., Ohio, April 7, 1882.

M.

A QUESTION OF DIAGNOSIS.

February 8th I was called to see an infant, aged seven months, of Mr. A. K. Questioning the mother, I learned from her the following history : She nursed the child, whose only complaint was habitual constipation, which necessitated the administration of castor oil or the use of injections.

Previous to my visit the child had had for two nights high fever, which lasted until morning. The skin had been very hot and red, especially the cheeks, forehead and neck, fading into paleness (this peculiar paleness I met during the time of my attendance). The child had been very restless and had cried almost constantly during this time. It was teething, and had two lower incisors already through. Observing the physiognomy, I noted the following symptoms : Small, pinched face ; photophobia, more from conjunctivitis than choroiditis. The lids pasted with purulent matter ; pupils fluctuating, rolling of the eye-balls, steady gaze in vacancy ; most of the time it lay stupid, or in a murmuring sleep. There was great heat of body, with dry surface, especially on the head and neck ; head retracted ; occasional fits of solitary, piercing cries, with sighing ; at intervals, a persisting and hacking cough ; there were movements of the right hand to the head or mouth ; on touching or moving it, it manifested pain ; tongue moist and coated with white slimy fur ; gums hot and swollen ; bowels tympanitic, swollen and costive ; intense thirst, but child refuses the breast. Auscultation and percussion showed the lungs to be freely and equally penetrated

with air ; no dullness in any part of the chest ; slight bronchophony ; respiration easy, but abnormally slow ; no evidence of heart or liver derangement could be found. Temperature varied, from the time I first saw the child up to my last visit, from 104° to $106.5-10^{\circ}$; continued fever, but preternaturally low and intermittent pulse. During the first three days of my attendance the patient had three hard, brown, odorless passages. On the fourth day it had four, which were softer and lighter.

These were the general symptoms from the first until the last visit, on the morning of the 12th, when I asked the father to discharge me. Considering all the symptoms, and particularly and specially the causes of their development, as the remittent fever from the irritation of the alimentary organs (costiveness), also the dentition then in progress, I made my diagnosis, "Hydrocephalus acutus." Child died on 17th, 9 P. M. I endeavored to obtain an autopsy, but failed.

Will the fraternity be so kind as to give their opinion, whether my diagnosis was right or not?

A. SACCONI, M. D.

Grantfork, Mad. Co., Ills.

SELECTIONS.

SURGERY.

THE PRE-CANCEROUS STAGE OF CANCER AND THE IMPORTANCE OF EARLY OPERATIONS.—The patient is the subject of cancer of the tongue in an advanced stage. The lymphatic glands are already enlarged. It is hopeless to think of an operation, and there is nothing before him but death, preceded by a few months of great and continuous suffering. His case is but an example of what is very common. Not a month passes but a case of cancer of the tongue presents itself in this condition. It is a most lamentable pity that it should be so, and the bitterest reflection of all is, that usually a considerable part of the precious time which has been wasted has been passed under professional observation and illusory treatment. In the present instance, the poor fellow has been three months in a large hospital, and a month under private care. I feel free to speak openly on this matter, because my conscience is clear that I have never failed when opportunity offered, both here and elsewhere, to enforce the doctrine of the local origin of most forms of external or surgical cancer, and the paramount importance of early operation. Nearly twenty years ago I spoke concerning the "successful cultivation of cancer;" telling how, if doctors wished their patients to die miserably of this disease, they could easily bring it about. The suggestion was, that all suspicious sores should be considered to be syphilitic,

and treated internally by iodide of potassium, and locally by caustics, until the diagnosis became clear. More recently, I have often explained and enforced the doctrine of a pre-cancerous stage of cancer, in the hope that, by its aid, a better comprehension of the importance of adequate and early treatment might be obtained. According to this doctrine, in most cases of cancer of the penis, lip, tongue, skin, etc., there is a stage, often a long one, during which a condition of chronic inflammation only is present, and upon this the cancerous process becomes engrafted. I feel quite sure that the fact is so. Phimosis and the consequent balanitis lead to cancer of the penis; the soot-wart becomes cancer of the scrotum; the pipe-sore passes into cancer of the lip; and the syphilitic leucoma of the tongue, which has existed in a quiet state for years, at length, in more advanced life, takes on cancerous growth. The frequency with which old syphilitic sores become cancerous is very remarkable; on the tongue, in particular, cancer is almost always preceded by syphilis, and hence one of the commonest causes of error in diagnosis and procrastination in treatment. The surgeon diagnoses syphilis, the patient admits the charge, and iodide of potassium seems to do good; and thus months are allowed to slip by in a state of fool's paradise. The diagnosis, which was right at first, becomes in the end a fatal blunder, for the disease which was its subject has changed its nature. I repeat that it is not possible to exaggerate the clinical and social importance of this doctrine. A general acceptance of the belief that cancer usually has a pre-cancerous stage, and that this stage is the one in which operations ought to be performed, would save many hundreds of lives every year. It would lead to the excision of all portions of epithelial or epidermic structure which have passed into a suspicious condition. Instead of looking on whilst the fire smouldered, and waiting till it blazed up, we should stamp it out on the first suspicion. What is a man the worse if you have cut away a warty sore on his lip, and when you come to put sections under the microscope, you find no nested cells? If you have removed a painful, hard-based ulcer of the tongue, and with it perhaps an eighth part of the organ; and, when all is done and the sore healed, a zealous pathological friend demonstrates to you that the ulcer is not cancerous, need your conscience be troubled? You have operated in the pre-cancerous stage, and you have probably effected a permanent cure of what would soon have become an incurable disease. I do not wish to offer any apology for carelessness, but I have not in this matter any fear of it.—Jonathan Hutchinson, in *Brit. Med. Journal*.

THE TREATMENT OF INVETERATE ECZEMA BY MEANS OF IGNIPUNCTURE.
—There are cases of eczema which do not get well under any of the ordinary methods of treatment. In such cases Dr. Chalat recommends the destruction of the diseased surface by a pointed cautery iron, heated to a

white heat, and thrust deep enough to go completely through the skin, punctures being made about one-third of an inch apart. It is essential that the cauterization should be thorough; and not superficial. It is necessary that the inflammation following the operation should leave untouched no part of the eczematous surface.

The cauterization should not be confined to the affected part, but should be extended into the seemingly healthy skin at the borders for a space of one-third to one half of an inch.

When the surface to be treated is not larger than a silver dollar, a single sitting suffices. When, however, a large surface is involved, there must be several operations at intervals of about a week. After the cautery has been employed the part cauterized is treated with cold compresses like any ordinary burn. The pain of the operation itself is not severe, if care be taken that the iron be heated to a *white* heat. The principal pain is on the second or third day after the operation.—*Paris Medicale*.

COLLYRIUM FOR DISSOLVING METALLIC BODIES FROM THE CORNEA.—Dr. Rodriguez reports the following case (*Revista de Ciencias Medicas*): A blacksmith, aged eighteen, received in his eye a small splinter of metal, which remained there incrustated in spite of all attempts to remove it. The following wash was then employed: Rose water, ʒiij; iodine, gr. ss; iodide of potassium, gr. ss. The result was extremely satisfactory. The particle of metal was transformed into a soluble iodide of iron, and all traces of the foreign body had disappeared. The cornea regained its normal condition, and vision remained unaffected.—*So. Med. Record*.

ABSTRACT OF A CLINICAL LECTURE ON THE RECOGNITION AND TREATMENT OF THE EARLY STAGES OF POTT'S DISEASE. (D. Hayes Agnew, M. D.)—I shall confine myself to-day to calling your attention to the symptoms belonging to the first stage, which, in nearly every instance, are due to nerve irritation, and which, taken together, should almost unfailingly lead to the detection of the true nature of the malady, at a time when proper treatment will often result in complete cure without disfigurement, but which in practice I find are not recognized until this all-important period has passed. Any one of these symptoms may be the first to attract the attention of the child's family; but as a rule, you will be consulted in reference to a supposed alteration in the little one's disposition, a tendency to avoid all active amusements, a slight dullness or peevishness, or general malaise, which only becomes noticeable or alarming on account of its persistence. If you will at this time carefully observe the movements and posture of the child, you will see that its motions are restrained, that it carries itself with unnatural stiffness, that its gait is possibly a little shuffling, the feet not being lifted from

the ground, and that when standing or sitting it leans forward and rests its hands upon the knees or anterior portions of the thighs. You should now at once reflect that these symptoms are all explicable on the theory that some change is going on in the spinal column, probably in the vertebral bodies, but, possibly, in the intervertebral substance, which has set up an irritation in the spinal nerves, and has rendered them unduly sensitive; that, on account of this condition, play has become distasteful, as requiring muscular movement which produces at least a sense of discomfort; that the slight jarring or concussion of ordinary walking gives rise to pain; and that to remove pressure from the inflamed structures, the child, through the medium of its arms, instinctively transfers the weight of its head and shoulders to its lower extremities.

You then proceed to look for further symptoms of nerve irritation, and will, probably, by careful investigation, elicit some or all of the following:

Hurried or grunting respiration on slight exercise, due to involvement of the nerves supplying the external respiratory muscles.

Pain in the shoulders, the walls of the thorax, or in the lumbar region, the seat varying with the portion of the spine affected by the disease.

Pain at the pit of the stomach, resembling an ordinary "belly-ache," but due to irritation of the spinal nerves, which supply the intestines. This pain, like that of colic, is temporarily relieved by the prone position, pressing on the bowels controlling to a certain extent the irregular and spasmodic action of their muscular coats, which is associated with both these conditions, or, in other words, fulfilling the same function as the roller bandage in fracture.

Fidgety movements of the feet from implication of the crural or sciatic nerves, or their trunks of origin.

Pain in the hip, knee or thigh, due to the same cause.

Pain on jumping, coughing, sneezing or sudden turning, or on any movement which takes place while the dorsal muscles are relaxed, or so to speak, "off guard."

Pain elicited by pressure upon the head or shoulders, and strictly localized, involving a small area directly over a definite part of the spine. Conversely, it will be found that the pain, if constant, will be relieved by placing the child in a prone position across the knees, and then separating them gently, so as to make traction in opposite directions upon the two extremities of his vertebral column.

Hyperesthesia is also limited to a definite region, and detected by passing a hot sponge along the vertebral gutters. Evidences of pain are often manifested when the diseased part is reached.

A peculiar, and very characteristic, method of reaching objects lying upon the ground. The patient will lower himself, not, as would be natural, by

any movement of the body, which will be held rigidly perpendicular, but by flexing the knees and thighs until the hand touches the desired article. In rising, the same care will be observed to avoid flexion or rotation of the spine.

I do not desire to be understood as teaching that all of these symptoms are without exception present in the early stages of Pott's disease, but you may rest assured that in nearly every case you will find several of them, and that you will be able by their means to make your diagnosis and to apply your treatment.

The latter, both in principle and practice, is extremely simple. When you recall the conditions upon which the symptoms depend, and remember that its progress is hastened and its severity increased by pressure and by the weight of the head and upper portion of the trunk, it at once becomes evident that surgical interference must be directed towards a removal of these sources of aggravation of the original trouble.

The recumbent posture, strictly adhered to and continued for a period long enough to permit of the gradual subsidence of the inflammation, the absorption of its purulent or cheesy products, and the development of new fibrous or bony material to consolidate and strengthen the affected vertebræ, would meet all the therapeutic indications. In young children this may be thoroughly carried out, the enforced rest only terminating with the occurrence of ankylosis, particularly if the disease be situated in the cervical or cervico-dorsal region. In the great majority of cases, however, this is hardly feasible; the natural restlessness of the child, and the absence of careful and continuous attention on the part of the parents, who see no marked external evidence of disease, usually sufficing to thwart this plan of treatment or to preclude its persistent employment. The same indications should then be met by the application of a mechanical apparatus, to be worn uninterruptedly which will permanently remove all weight from the inflamed bones.

Of all those which have been devised for this purpose, two only are worthy of mention, viz., the plaster-of-Paris jacket applied now in the well-known manner, or a leather jacket accurately moulded and fitted over a plaster cast taken from the patient. The latter dressing, although more expensive at first, is lighter and more durable than plaster, and answers the purpose of support equally well. With either of them, where the disease is situated above the lumbar region, the head-suspension apparatus becomes a necessary addition to the jacket. Both of these appliances act by shifting the weight of the head and shoulders from the spine to the irregular surface of the thorax, abdomen, and loins, and to the margin of the pelvis. When ankylosis has occurred, which may be known by a gradual disappearance of the symptoms, the jacket may be dispensed with, removing it at first for a few moments each day, and gradually lengthening the interval, until it is left off altogether. In conclusion, I would caution

against the common and harmful assumption that in every case some mechanical support can be employed, by means of which the patient can with safety be allowed to go about. In certain cases, fortunately not very numerous, where all these dressings give rise to pain, or in which the deformity appears and increases in spite of them, they should be withdrawn, the only possible hope of arrest or cure of the disease depending then upon strict and protracted recumbency. In conjunction with any of these plans of treatment, fresh air, sunlight, nutritious food, cod-liver oil, iodide of iron, and the phosphates, constitute useful hygienic and therapeutic adjuvants.—*Med. News.*

TREATMENT OF CARIES OF THE SPINE IN CHILDHOOD, ESPECIALLY IN REFERENCE TO SAYRE'S PLASTER JACKET. (Howard Marsh, F. R. C. S., Assistant Surgeon and Demonstrator of Orthopedic Surgery at St. Bartholomew's Hospital, etc.)—Two different methods are in vogue for the treatment of caries of the spine. The one confines the patient to the horizontal posture, with the object of relieving the column of weight, and of preventing muscular action. The other consists in the use of some apparatus with which the patient is allowed to go about as usual. The most recent development of the latter method is found in Dr. Sayre's plaster-of-Paris jacket and jury-mast. As these inventions have now been before the profession for some years, the time seems to have come for looking into the whole question, and for asking what are the principles on which such an affection as caries of the spine should be treated; what are the difficulties arising out of the conditions under which these principles have to be applied in different forms of the disease; and what are the absolute, and what the relative, value of the means at our disposal for carrying them into effect.

In trying to ascertain what these main principles are, we may, I think, very properly turn to the case of inflammation of the joints in childhood. The nature of the disease is very similar in the two instances; and the functions of the spine, in bearing and transmitting weight, and in taking part in the various movements of the body, closely correspond with the functions of the large joints; of which the knee may be taken as a convenient example.

It is agreed that when the knee-joint is inflamed, it must be kept at rest; and, that rest may be secured, not only is the joint enclosed in some firm apparatus, but the patient is not allowed to bear any weight upon the limb. Either the parents are directed to have the limb maintained in a horizontal posture, or the patient is supplied with an instrument the professed purpose of which is to transmit the weight of the body to the ground, while the affected part is allowed to hang in a perfectly passive condition, with its functions as completely suspended as are those of a healthy joint during sleep. I say nothing of the efficacy of these instruments; this varies in different ex-

amples. I allude only to the fact that they are intended to place the joint at complete rest. How does the matter stand in the case of the spine? When a patient with spinal caries is supplied with a Sayre's jacket, and allowed to go about, how are the functions of the column performed? how is the weight above the seat of the disease supported, and transmitted to the pelvic arch, and how are the acts of walking, stooping, rising, lifting objects, etc., carried on? Either the patient is using his spine, or he is using his instrument instead of his spine. If he be using his spine, then the question arises, how is it that a patient may use a diseased spine, though he may not use a diseased knee-joint? while, if it be maintained that he is using his jacket instead of his spine—that the jacket becomes vicariously a part of the skeleton, and replaces the spine in respect to the bearing of weights and the execution of the various movements of the body—the proposition is one which seems to deserve close examination.

I will first discuss the proposition, that the action of the jacket is to remove the superincumbent weight from the spine at the point of disease; or, what is the same thing, that it supports the weight of all the parts above the level at which caries exists. Let us suppose that the disease is in the sixth dorsal vertebra, and, in order to simplify the question as far as possible, let us suppose that the patient is standing still. When the body of the sixth dorsal vertebra is in process of destruction, the fifth tends to descend towards the seventh, with the result that the column bends forward, and that the parts within the angle are compressed. It is, therefore, required of the jacket that it shall take the weight of the upper part of the column off the lower part, and transmit it by a collateral route to the pelvic arch. If this is to be done, two conditions appear essential: 1. There must be an efficient basis upon which the jacket may rest. 2. The jacket must have a secure hold on the part of the column which it is required to sustain. Let us first examine the base. In young adult females in whom the pelvis is broad, and much greater in circumference than the thorax, and in whom the waist is small, the jacket rests on the expanded iliac crests, and the adjacent shelving bony framework of the hips, and the basis of support is fairly ample. In adult males, however, the pelvis is much less expanded, and in circumference is often less than that of the thorax; while in children under seven (very frequently subjects of caries), while the circumference of the pelvis measures, say, twenty inches, that of the thorax is often from twenty-one to twenty-four inches. Thus, while the thorax and pelvis in young adult females form a cone with the base directed downward, in males, and quite as markedly in children, these parts form a cone the wide part of which is above. How, then, can the pelvis afford the jacket an efficient base on which to rest while it transmits the weight of all the parts appended to the upper part of the spinal column? But more than this. In estimating

the efficiency of the basis of support afforded by the pelvis, it must be remembered that the tendency of the column is to fall forward, and that therefore it is required that the purchase should be especially firm in front. In front, however, there is no bony point except the symphysis pubis. But this is too far back, and it presents no horizontal surface looking upward on which the lower edge of the jacket can rest. Indeed, I believe no one supposes that the symphysis does, as a matter of fact, afford any support. Yet, besides the symphysis, there is nothing but the muscular wall of the abdomen, with intestines behind it—structures which, in respect to their capability of giving support to an instrument, may fairly be compared to a more or less tightly filled air-cushion. They yield and recede as soon as the pressure tells upon them. It is, I know, held by some surgeons, that the purchase anteriorly is not on the abdominal wall, but on the anterior superior spines and the iliac crests. But can we concede that this is really the case? In children, these parts are so little salient, and are, so to say, so embedded in the abdominal wall, that the jacket cannot “clip” them. Even if they could be made to serve as points of support, would the skin over them bear the pressure representing the weight of the parts above the curvature? If they were thus used, would we not meet with pressure-sores over them? Though there is a great liability to pressure-sores over the spinous processes of the vertebræ, I have indeed rarely met with them over the anterior superior spines or the crests of the ilia. Indeed, I believe these points, as a matter of fact—even when the jacket is pinched in above them, so that it has, what a child under seven has not, something approaching to a waist—afford but very slight support. This is evidently the view of Dr. Sayre, who says at page 17 of his work, that a “detail of practical value is the application over each anterior superior spine of two or three thicknesses of folded cloth of four inches in length. If these little pads are removed just before the plaster has completely set, such bony processes will be left free from pressure.”

Thus, one of the great difficulties in the problem is, that no thoroughly efficient base for the support of the weight which the jacket is required to transmit can be obtained. But, next to a firm base to rest upon, the jacket should have a secure hold on the part of the thorax which it is called upon to support. It has been asserted that the jacket fits so closely, that it molds itself to the alternate ridges and hollows formed by the ribs and the intercostal space, and thus securely grasps the chest; and Dr. Sayre says that it is to be applied so that the ribs are held still, and so that the breathing is rendered diaphragmatic and abdominal. And, he adds, when the thorax is thus firmly secured, the anus and perineum will rise and fall synchronously with the diaphragm, and the respiration be carried on without difficulty so long as these parts are free from pressure. “It is necessary, in some cases, that

the patient should sit up in a chair, with a hole in the seat, like a close-stool, or use an inflated india-rubber ring, like the ordinary life-supporter" (p 12).

But, surely, here is an instance in which theory and a fervid imagination have overleaped the bounds of what is either advisable, or even possible, in practice. We stand aghast when we are told that the thorax, during the period of its rapid growth and development, is to be so tightly constricted that its movements in respiration are entirely arrested. And can we believe that the skin thus firmly compressed—so firmly that no sliding can take place between the bony framework of the thorax and the jacket—would remain free from severe injury? But, if we turn to what is observed in actual practice—nay, even if we follow the instructions which Dr. Sayre himself has elsewhere given us (p. 18), when he tells us that "the bandage should be placed smoothly round the body, and must not be drawn tight"—we cannot maintain that the jacket fits so compactly as we are told it ought to do. On the contrary, I have always found that the finger can be easily passed down between the jacket and the surface of the chest. In considering the importance of the hold which the jacket should have on the thorax, in order that it may remove weight from the point of curvature, we must remember that the work must be done, so to speak, on a fine scale. We cannot safely separate the diseased surfaces so as to establish any considerable interval between them. It is rather a question of moderating the mutual pressure of the opposed surfaces than of completely separating them; so that if our support is to be adequate, it must act within the tenth of an inch; in other words, if it yield by so much as the tenth of an inch, pressure at the seat of disease returns, and the instrument loses its effect. And the difficulty of maintaining this slight amount of separation is increased by the structure of the spine itself. If the portion above and that below the disease were two solid rods, any extension we applied would tend to separate their adjacent ends—that is, to diminish their mutual pressure; but in the spine, formed as it is of blocks, with elastic intervertebral discs, the extension used is to a great degree lost in the general mobility of the column, and cannot be made with any amount of precision to act on the point at which the disease is situated.

Thus, when we see that the amount to which we can safely separate the two segments of the spine which meet at the point of disease is not more than about the tenth of inch; that the extending force must be conveyed through a column permitting, in its whole length, considerable mobility; that the apparatus we employ is a case so as to surround the spine itself, but the whole thorax and abdomen; that there is no adequate base from which the case can take its purchase; that, in fact, this base is usually no larger, and often much smaller, than the part for which support is required; that, in order that the functions of respiration may be carried on, the case must be

sufficiently loose to allow the thorax some play beneath it,—I cannot but see the doubt that arises whether the jacket is competent to carry out the principles upon which it is supposed to act. Thus far, however, I have supposed the child to be standing still, and have discussed the action of the jacket without reference to muscular action. This part of the question, however, calls for some remark. During muscular action, the spine works, both as a whole and in all its parts, by leverage. Thus, for example, when the dorsal is extended upon the lumbar spine, it forms a lever; the lumbar spine serving as a fulcrum, while the erector spinæ is the power. Whenever a lever acts, it is pressed against its fulcrum. Therefore every movement of one part of the spine on another is attended with intervertebral pressure. Now, when a patient with spinal caries is fitted with a jacket and allowed to go about, what happens when he moves his spine—when he rises from the stooping to the upright position? If it were possible to detach the muscles at their insertion into the spine, and fix them to the jacket, the spine might remain passive, and be carried up in the apparatus; but, as it is, the spine, with the parts appended to it, is raised by muscular action, precisely as it is in health, and with the same amount of intervertebral pressure. It is the jacket, and not the spine, that is passive. The only effect of the jacket is to add to the weight which the spine is called upon to raise. Thus I do not see how it can be held that the spine is at rest, and that intervertebral pressure is prevented during muscular action by the use of the jacket; or how the condition of the spine differs from that of a diseased knee-joint, in which every muscular contraction is attended with inter-articular pressure.

In reply to the foregoing remarks, however, it may be objected that, after all, the value of a given method must be determined not so much by any *a priori* considerations as by the results which it yields in actual practice. This is true. I will, therefore, turn to this branch of the subject. In the out-patient room at the Children's Hospital, and more recently in the orthopedic department of St. Bartholomew's Hospital, I have applied the jacket to a large number of patients between the ages of one and eight or ten years, and have seen it used very largely by others. In many instances of disease in the dorsal region, the patients, while wearing the jacket, have complained of no pain (but this has seemed to prove nothing, for children often do not complain though they are entirely without apparatus), and their general health has remained good; but the deformity has, in the majority of cases, steadily though slowly increased. Here and there I have met with cases in which recovery, with more or less deformity, has ensued; but the result has been limited, I believe, mainly to instances in which the disease after a time shows a tendency to undergo spontaneous repair, brought about, perhaps, by ankylosis between the articular processes, laminae, and neighboring parts of the column; which, by arresting further caving in, has re-

lieved the bodies from pressure. In disease of the lumbar spine, also, I have on many occasions seen the deformity steadily increase, and at last a large iliac abscess form; but I cannot say I have ever seen any instance in which, even when the jacket was applied in the early stage, the arrest of the disease, and finally its cure, could be attributed to this method of treatment. In watching these cases, it has always seemed doubtful whether the jacket, instead of supporting the parts above the disease—which, let it be noted, include all the trunk and the head and upper extremities—does not simply add to the weight which the diseased column already has to bear.

As to the jury-mast for the treatment of disease in the upper part of the spine, I have not myself succeeded in rendering it useful; and, in cases under the care of other surgeons, its action has appeared clearly defective. In the cervical, as in the other regions of the spine, the scale of extension is graduated to the fraction of an inch; and an efficient action of the suspending straps is counteracted by the alteration of their tension, which results whenever the position of the head is changed. There is the same difficulty in keeping the straps tight as that which is met with in the perineal band, and which has led many surgeons to discard its use. Wherever I have examined a case in which the jury-mast was in use, I have, I believe I may say, invariably found that, after a few hours, the straps have become so loose as to produce no extension.

In venturing on an estimate of the value of the jacket, I do not forget that children are sometimes much relieved by its application. This fact must not, however, be allowed too much weight. A number of instances might be cited in which, though a method of treatment is acknowledged to be inefficient, it will yet to some extent control pain and other symptoms. The jacket often gives relief, not because it so completely removes intervertebral pressure and keeps the spine at rest that the disease is placed under the most favorable conditions for repair, but because it steadies the spine, and restrains both sudden and extensive movements either forward or laterally. The effect of the jacket is often seen when, in caries affecting one or more of the upper dorsal vertebræ, it is applied to the trunk below the disease, but does not extend above this level. Here, obviously, it can have no direct influence in supporting that part of the spine above the caries, and yet it nevertheless affords the patient considerable relief.

Having formed these views respecting the jacket, I am left to the conclusion that the best method at present known for the treatment of spinal caries is that by complete recumbency. This plan, if carefully carried out for the necessary time—extending, it may be freely allowed, from six to eighteen months, or even longer—will generally effect a cure: and it will also prevent the occurrence of increase of deformity. It is now well known that the means are at our disposal by which the distressing deformity that

used to result in the course of hip-disease can be prevented, so that the patient recovers with a straight, though it may be a shortened limb; and the lamentable distortions which now commonly ensue in the course of spinal caries can assuredly be prevented by the recumbent treatment, if it be applied in the early stages of the disease. I know it is objected that this method interferes with the general health, leads to bed-sores, and is very tedious. It is tedious no doubt; but this is a feature inherent in the nature of the disease, which, in this respect, resembles caries of the tarsus, disease of the joints in childhood, and gland-enlargements, slowly tending towards suppuration. As to bed-sores, they are never met with in children who are fairly well attended to, however long they may be kept recumbent, except in cases of extreme exhaustion and wasting. In ordinary instances of spinal disease, they may be avoided by the use of moderate care and the maintenance of cleanliness. And, as to the failure of the general health from mere confinement to the recumbent posture, this has assuredly been very greatly exaggerated. I have seen numerous instances in which children have remained robust and fat, even though they have been recumbent for as long as two or even three years. The causes of wasting and failing health are usually either pain or prolonged suppuration; and both these may be generally avoided if the recumbent treatment is adopted early and carried out thoroughly.

I believe it is very advisable to combine the use of some firm apparatus with the maintenance of recumbency. For this, the plaster jacket may sometimes be usefully employed though the poroplastic felt cases are, I think, decidedly preferable. These cases are very readily applied; they can be easily removed and remolded; they are very light, durable, comfortable, and by no means expensive. I have used them very largely for patients at the hospital, and have found them very satisfactory, both for acute disease during the period of recumbency, and also in the convalescent stage of the affection, when the patients are allowed to move about.

THE CAUSES OF FAILURE IN OBTAINING UNION IN OPERATION WOUNDS, AND THE METHODS BEST CALCULATED TO SECURE IT. (By the late Prof. Wm. Warren Greene, M. D., Portland, Maine.)—During an active practice, which for fifteen years has been very distinctly surgical, I have gradually been led to the following conclusions:

First.—Wounds are more certain to heal by first intention, if thoroughly excluded from the air; and for such exclusion, fine cotton-wool, absorbent or not, according to circumstances, is the best agent.

It is true that superficial wounds, like those for removal of cancer of the lip, or for closure of hare-lip, heal perfectly well, if nicely apposed, with no

artificial dressing whatever. But nature teaches us a lesson in all these cases by immediately furnishing such a covering of blood and lymph as, when dried, is perfectly air-proof. And I am sure that all important wounds, like those of amputations, excisions, the removal of large tumors, and similar operations, do best when covered in from atmospheric contact. For such purpose the finest quality of cotton-wool is the best of any substance that I have found. It is light, elastic, and practically air-tight, for in a few minutes after it is applied to the closed wound, it adheres to the surface by the drying sero-lymph that it absorbs.

Second.—Thorough drainage is an important element in the best dressing for healing by first intention.

It is true that if you, by accurate apposition of the flaps and the thorough exclusion of air, immediately put the deeper parts in the position of a subcutaneous wound, the tissues will very often take care of serum, etc. And, as Mr. Keith has said, in speaking of peritoneal surgery, each case must be taken on its own merits. After perfect cleansing, and perfect control of hemorrhage, just so far as we secure accurate coaptation of the parts, so far we do away with the need of drainage. But where we must leave cavities, union is facilitated by proper drainage. I think this matter is being overdone, however, by many enthusiastic followers of Chassignac using tubes so large, and retaining them *in situ* so long that they, acting as foreign bodies, hinder the simple processes of nature.

For this purpose I prefer hair-drains whenever applicable, as in small or superficial cavities, as after removal of tumors, excision of the mamma, and in amputations. I speak, of course, of *primary* drainage, for the removal of the bloody serum that flows directly after the wound is closed. After intra-peritoneal operations, when needed, I prefer glass or decalcified bone. Rubber-tubes I dislike for any purpose. True enough, they will often serve. So would almost anything. But they are too soft to withstand the compression from the dressings, and too frequently become clogged and seriously filthy.

Third.—Whatever be used for cleansing the parts during any important operation, whether by sponging or irrigation, and whether pure water or a solution of any medicinal substance be employed, it should be of the same temperature, or a little higher than that of the body.

I was exceedingly interested in the statements of professors Buchanan, Royet, and others, made recently, as to the value of maintaining the normal temperature of the body during abdominal section for any purpose. I believe that in years gone by I have lost several patients from failure to do this. The importance of this point grows upon me constantly with reflection. I mean the importance of more powerful measures than the heat of topical applications. I try to avoid all chilling the parts, and prefer the styptic influence of hot to that of cold applications.

Fourth.—For the control of hemorrhage, ligatures of some animal material, rendered as aseptic as possible, are best, and they should be used so freely as to make the wound dry, so far as hemorrhage proper is concerned. What the material for ligatures will be in the future is doubtful.

To the final dressing I have already referred in my first proposition.

As to Professor Lister's method, or what has come to be generally called Listerism, I have to say that the elements of the greatest possible cleanliness, the use of animal ligatures, thorough drainage and protection from atmospheric contact, have my most hearty endorsement, and I have for a long time employed these agencies. And I believe that in estimating the value of the systems, *as a whole, these several parts have been entirely under-estimated*, the spray and carbolic acid having taken the larger share of the credit.

I object to the spray because I deem it wholly unnecessary. The parts involved, as well as the hands and instruments, can be kept completely moist with any antiseptic solution that may be employed. It is not only, in my opinion, unnecessary, but its use, as practiced by Prof. Lister, involves not only at the time of operation, but in the often very early and frequent subsequent dressings, an amount of detail and finessing that is hardly practicable for a surgeon in a large private practice.

Again, I must positively object to carbolic acid. I have seen no evidence that an agent in solutions so powerful that in prolonged operations the surgeon's hands become stiff and numb for days, as happened to myself, and to several gentlemen in this room, is a proper or safe one to apply to large exposed surfaces. On the contrary I have seen much of carbolic acid poisoning; and I am very sure that the profession generally are not aware of the extent of this evil, especially in exciting disease of the kidneys. It has not been looked for.

I am inclined to think that, at least in the atmosphere of large hospitals, especially old ones, and, indeed, *perhaps*, generally in private practice, it is best, though in private practice not absolutely necessary, to use some article in the water used for sponging or irrigation that is antiseptic and indeed germicidal. For some time I have used boracic acid, in saturated watery solution, for this purpose, and have been well pleased. For although we talk about pure water a great deal, it is very rare, unless it has been recently boiled, and is much more likely to be the medium of access of bacteria to the wound than air-dust. Again, all this class of articles seem to have *some* quality which render tissues less prone to inflammation. How? is the question. Whether as germ destroyers or by some inhibitory influence by chemical action, which latter I think more likely, I feel sure such quality exists. But carbolic acid, over which the profession has gone wild, is not a germicide. It does not destroy bacteria; it paralyzes or anesthetizes them *while applied*. But let the fumes pass off, and they recover and become as

lively as ever. But there are true germicides that in potent strength lack the unfortunate qualities of carbolic acid—alcohol, chlorinated soda, salicylic acid, boracic acid, permanganate of potash, ozone; these are familiar illustrations. Offensive or irritant qualities are no evidence of therapeutic power in a substance, nor is the lack of such quality evidence of inertness.

One thing, however, must be said for carbolic acid. It is a prophylactic against inflammation, and a useful remedy in certain painful inflammatory and ulcerative processes. But it is too energetic for application to raw surfaces.

As I said in the beginning, this is a time for the statement of facts within our knowledge and of individual opinions based thereupon. So, to conclude, let me say that so far as the local management of wounds best calculated to secure union by first intention is concerned, I at present prefer the plan I have indicated, *keeping the whole question wide open for any new light in the future.*

I have not alluded to, but we must never forget, the all-important matters of the patient's surroundings, and of constitutional conditions and treatment.

First. The greatest possible cleanliness in every respect from first to last.

Second. The use of aseptic animal ligatures in sufficient numbers to control *all* hemorrhage.

Third. Thorough drainage, used with discrimination as to different methods in different cases and as to time of retention of drain.

Fourth. The maintenance of the normal temperature of the parts during the operation. For which purpose use warm water—better to have been boiled—with some such article in solution of germicidal strength, as chlorine, boracic acid, salicylic acid, etc.; although I do not consider this last recommendation absolutely essential, especially in private practice.

Fifth. Accurate, firm apposition by a *sufficient number* of sutures of some non-irritating material, such as hair, perfectly waxed silk, or metallic thread.

Sixth and finally, the perfect covering of the parts with light compresses, of pure cotton wool, supported by proper bandages. Where there is to be much oozing, absorbent cotton should be applied next to the surface to take up the contents of the drains; otherwise, nice wadding is sufficient.—*Med. Record.*

FIDDLE-STRING AS A BOUGIE.—Dr. F. E. Daniel, of Jackson, Miss., failing in a case of very tight stricture to get in the smallest ordinary bougie, used in the emergency a small *fiddle-string*. This passed in readily, and being withdrawn in a few minutes, was found to have swollen to nearly

twice its previous size. A larger one was then passed and allowed to remain fifteen minutes; this being then withdrawn, the urethra was sufficiently dilated to get in a No. 4, then a No. 6 bougie, and finally a flexible Nelaton's catheter, threaded on a fiddle-string. A second case was equally satisfactory. Dr. D. claims for the fiddle-string (catgut) cheapness, simplicity, availability, harmlessness, strength, and rapid expansion.—*Maryland Med. Journal*.

INCISION OF THE LACHRYMAL SAC.—Dr. C. R. Agnew, of New York, says (*Detroit Lancet*): The anatomy of the parts is about as follows: We have the eyelids covering the eyeballs, and toward their inner angle we have the puncta. Now, behind this angle, which is called the internal canthus, is the little gland called the caruncle, and, just in the crease between the caruncle and the angle of the eyelids, there is nothing between the external world and the cavity of the sac but conjunctiva and sac-wall. As the sac fills up with matter its anterior wall is brought forward, the tendon of Horner's muscle is more or less stretched, and the sac bulges below and above it, and is made prominent. Now, standing behind a patient who has such a lachrymal abscess, which you are not able to enter through the punctum, you may take Beer's knife, and, holding the head firmly, poise the blade of the instrument flat-wise, so as almost to be in contact with the cornea, pass it behind the internal canthus behind the angle where the lids come together, carrying the point inward, and enter the sac, reaching it by making a slight wound. This wound usually heals rapidly, does not interfere with the canaliculi, and, if it become fistulous, does no possible harm, because it is inside of the lid, and the sac empties itself inside, instead of outside upon the cheek. The sac having been emptied, it may be treated according to the indications.—*Can. Jour. Med. Science*.

OBSTETRICS.

MIGRATIONS OF THE OVUM.—To settle the question whether or not it is possible for ova to travel across part of the peritoneal cavity or that of the uterus, Dr. Leopold, of Leipsic, has performed some important experiments. In these he made use of eight rabbits. In each case he opened the abdomen, tied the right Fallopian tube in two places and cut out the piece between the ligatures; the left ovary was carefully removed, then the abdominal wound was closed. After thorough recovery each animal was put to the male. In six cases the result was entirely negative, but in two pregnancy followed. The abdomen of the latter was opened; in one four placenta were found in the left horn of the uterus, and one in the right. In the other, there were three placenta in the left horn, and two in the right.

He thinks that these experiments settle the question. In these rabbits ova could only reach the uterus by traveling across the peritoneum from the right ovary to the left Fallopian tube; and could only get into the right horn of the uterus by passing down the left horn and up the right. They prove, therefore, that it is possible for ova to migrate, not only across the peritoneum, but across the uterine cavity.—*Med. Times and Gazette*.

THE VALUE OF "CREDE'S METHOD" of expelling the placenta has recently been tested by comparative experiments. Fehling used Crede's method in ninety cases. The placenta was left to come away itself in ninety-five cases. The following were the results:

In the first series (Crede's method) the average loss of blood for each patient was $\bar{3}$ vss. The time before the placenta came away averaged 7.7 minutes. In the second series the average loss of blood was $\bar{3}$ vij. 7-10. The time before expulsion was 13.4 minutes. In eighty-five of the ninety cases treated by Crede's method the membranes came away entire. In ninety-one of the ninety-five cases left alone the membranes came away entire.

A METHOD OF REMOVING BENIGN TUMORS OF THE BREAST WITHOUT MUTILATION.—Professor Thomas, Surgeon to the New York State Woman's Hospital, (*New York Medical Journal*) expresses himself in favor of removing benign tumors of the breast as a rule, because the mere presence of a tumor in the breast usually renders the patient apprehensive, nervous, and often gloomy, while, with our present improved methods of operating, the patient is exposed to slight risks, the danger of growth of the tumor is removed, and with this disappears at the same time that of the subsequent degeneration of a benign into a malignant growth. If, in addition to these advantages, we can add the avoidance of all mutilation to the person, we have strong grounds for departing from the practice of non-interference. The method of operation described Dr. Thomas has practiced thus far in a dozen cases. He distinctly states that it is entirely inappropriate for tumors of malignant character, and that it is applicable neither to very large nor to very small benign growths, being insufficient for the former and unnecessarily radical in its character for the latter. The growths for the removal of which he has resorted to it have been fibromata, lipomata, cysts, and adenomata, and have varied in size from that of a hen's egg to that of a duck's egg or a little larger. The operation is thus performed: The patient standing erect and the mamma being completely exposed, a semicircular line is drawn with pen and ink exactly in the fold which is created by the fall of the organ upon the thorax. This line encircles the lower half of the breast at its junction with the trunk. As soon as it has dried the patient is anesthetized, and with the bistoury the skin and areolar tissue are cut through, the knife exactly following the ink-line until the thoracic muscles are reached. From

these the mamma is now dissected away until the line of dissection represents the chord of an arc extending from extremity to extremity of the semicircular incision. The lower half of the mamma which is now dissected off is, after all ligation of bleeding vessels, turned upward by an assistant and laid upon the chest-walls just below the clavicle. An incision is then made upon the tumor from underneath by the bistoury, a pair of short vulsella forceps is firmly fixed into it, and, while traction is made with it, its connections are snipped with scissors, the body of the tumor being closely adhered to in this process, and the growth is removed. All hemorrhage is then checked, and the breast is put back into its original position. Its outer or cutaneous surface is entirely uninjured, and the only alteration consists in a cavity at the former situation of the tumor. A glass tube with small holes at the upper extremity and along its sides, about three inches in length and of about the size of a No. 10 urethral sound, is then passed into this cavity between the lips of the incision, and its lower extremity is fixed to the thoracic walls by adhesive plaster, and the line of incision is closed with interrupted suture. In doing this, to avoid cicatrices as much as possible, very small round sewing-needles are employed; these are inserted as near as possible to the edges of the incision, and carry the finest Chinese silk. The line of the incision is then covered with gutta-percha and collodion. If the glass drainage-tube act perfectly, there is no offensive odor to the discharge, and the temperature does not rise above 100° ; the tube is in no way interfered with until the ninth day, when the stitches are removed. If, on the other hand, the tube does not appear to perform its function satisfactorily, it is manipulated so as to cause it to drain all parts of the cavity, and warm carbolized water is freely injected through it every eight hours. On the ninth day, when the stitches are removed, the tube is removed likewise.

MEDICINE.

INHALATIONS OF AMMONIA IN BRONCHITIS, ETC.—This line of treatment is recommended by Dr. L. M. Sweetnam (*Can. Jour. Med. Sci.*), in cases of cough from bronchitis, phthisis, etc. He reports excellent results. He causes the patients to wear outside their shirts, and over the upper part of the sternum, a small bag containing pieces of carbonate of ammonia. He thinks that in this form of inhalation we have a remedy calculated to palliate in the majority of cases that most distressing symptom of a disease so constantly fatal, and over whose course we have so little control.

TINCTURA FERRI CHLORIDI, IMPROVED.—To every drachm of the officinal tincture add half a drachm of potas. citras. The result is a liquid

of a beautiful green color, quite free from the peculiar roughness of the iron. For a tablespoonful dose, containing ten minims, the prescription can be written thus:

R Tinct. ferri mur..... $\overline{3}$ ij
 Potas. citrat..... $\overline{3}$ i
 Syrup. limonis..... $\overline{3}$ iss
 Aq. ad..... $\overline{3}$ vj

This elegant combination ought to suit fastidious patients. Another advantage of this mixture is, that astringent tinctures, as bark, gentian, etc., may be added without decomposition.—*Canada Medical and Surgical Journal*.

INHALATION OF COLD AIR IN THE TREATMENT OF PNEUMONIA.—Dr. J. T. Everett, of Sandusky, Ohio, states that the continuous inhalation of cold air, ranging from 10° to 15° Fah., while the patient is kept in a room with a temperature of from 80° to 85° Fah., will, in the early stage of pneumonia, act as an abortive, and bring the disease to a speedy termination. His explanation is that the cold air, coming in direct contact with the tissues of the pulmonic parenchyma, extracts heat from the blood, and by carefully noting the external temperature and that of the patient this abstraction of heat can be regulated with the utmost nicety and precision—can be commenced or stopped instantly, without prostrating the nervous system by sedatives or narcotics, and without the loss of blood. This cold air in thus coming in contact with the lung tissues causes contraction of the vessels, thus lessening the amount of blood admitted to the lung tissues, and by its constricting influence tends to drive out that which has become partially deposited by the stasis, while by increasing the oxygenation of that already admitted it hastens resolution. The increased heat of the air surrounding the patient favors copious perspiration, thus by the evaporation process favoring the additional abstraction of heat.

In winter, when the atmosphere out-doors is cold, he causes the patient to breathe through a rubber tube, one end of which is inserted through a hole in the window sash, while the other end, fitted with a proper face-piece, is given to the patient. In treating a few cases that might occur in the summer, the air should be drawn through a refrigerator. The history of eight cases is given, all of which recovered rapidly.—*N. Y. Med. Record*.

DIARRHEA OF PHTHISIS:—

R Resin. terebin.....gr. iij
 Argent. nit.
 Opii pulv.....aa gr. $\frac{1}{4}$
 M. Sig. One pill when needed. This formula is used in these cases at

Roosevelt Hospital with uniform good results, the diet being milk boiled with mutton suet until it is as thick as cream.—*Med. Gazette.*

BICARBONATE OF SODA IN TONSILITIS.—Dr. Gine, Professor of Clinical Surgery at Madrid, states that bicarbonate of soda, applied topically and repeatedly to the tonsils, is of incontestible efficacy in quinsy. The remedy may be employed by insufflation through a paper tube, or may be applied by the finger, even by the patient himself. Dr. Gine has rapidly cured dozens of cases by this procedure. In no single case was the application entirely without effect; most commonly a cure was obtained in 24 hours. Alleviation took place, ordinarily, at once. In none of his cases was it necessary to wait long for relief. But he especially recommends this remedy in the prodromic period to abort the disease. Dr. Gine considers tonsilotomy for enlarged tonsils as an entirely useless operation, for this affection is always overcome in a relatively short time by the frequent application of bicarbonate of soda.—*La Presse Med. Beige*, July 17, 1881.

[The above is going the rounds of our exchanges. A year or two ago it was lemon juice that was the sure cure. We are willing to concede to each equal efficacy with the other.—EDS. JOURNAL.]

VACCINAL SKIN ERUPTIONS. (George Thin, M. D., London.)—One of the most interesting discussions which took place in the Section of Dermatology at the meeting of the International Congress in August last, followed a paper by Dr. Gustav Behrend on Vaccinal Skin Eruptions. Dr. Behrend's position as public vaccinator at Berlin had afforded him unusual facilities for observing these eruptions, and reports of seven cases were given in his paper.

The author divided vaccinal rashes into two classes, suggesting that in the case of the early ones (those which occur during the first three days), the vaccination wound itself might be a factor, whilst the later ones (beginning from the eighth day) were probably due to absorption of certain materials from the developed pustule. The venerable Professor Hardy, of Paris, who was present, contributed from his ripe experience a number of facts of much value. He remarked that vaccine eruptions were of three kinds—generalized vaccinia, which, he said, is common; exanthematic eruptious, which occur before the development of the vaccine; and diathetic eruptions (eczema, etc.) often caused by vaccinia after the development of the vaccine pustule.

The power of the vaccine virus to produce general vascular disturbance (which is the interpretation I assign to the power to produce eruptions) was strikingly exemplified by the account of an illness experienced by M. Hardy

himself. During the siege of Paris an epidemic of small-pox broke out in the beleaguered city, and M. Hardy having charge of a small-pox hospital, yielded to the solicitations of his pupils and had himself revaccinated. There followed, in consequence of the vaccination, an outbreak of urticaria (what the subject of it would term, I imagine, a case of diathetic eruption), which not only affected the skin, but attacked the bronchial mucous membranes, producing paroxysms of suffocation which threatened a fatal termination.

All practitioners of any experience must be able to recall cases in which obstinate eczema in infants has first shown itself after vaccination, and other ailments of a general character are probably sometimes produced by the effect of the vaccine virus upon the system in delicate persons. During the late epidemic of small-pox in London, I had occasion to meet with several cases in which patients attributed a temporary condition of depressed health to re-vaccination.

During this re-vaccination period I had occasion to see in consultation a patient whose case may be worth recording as an example of what M. Hardy would call a diathetic vaccinal eruption.

A strong, healthy young woman aged 25 had been vaccinated in infancy and had good marks. She was re-vaccinated on May 6th in three places, and all of these took. From the fifth to the ninth day there was much inflammation, the redness and swelling involving the whole arm from the shoulder to the elbow. On May 18th two circular marks appeared over the extensor surface of the distal joint of the thumb of the left hand, and on May 29th the eruption had appeared over the knuckles. When I first saw her on May 23d I found her suffering from an attack of erythema papulatum on the knuckles, elbows, knees, front of neck, flexor surfaces of the wrists, and palms; the eruption being in some parts characterized by so much serous effusion as almost to justify the name *herpes iris* (which is merely a more acute manifestation of erythema papulosum).

The eruption did not differ from that usually found in erythema papulosum, a disease sufficiently common, more especially in spring and autumn, to have come under the notice of most practitioners, and described in all text books in which skin diseases are described. Although the eruption ran its usual course, in this case it was in one respect exceptional in its distribution. The seat of the erythema is usually on the dorsal surface of the hand and the palms are spared; the authorities, so far as I have been able to examine them, being unanimous on this point. But in my patient the eruption was freely out on the palms of both hands and on the palmar surface of the fingers.

Hebra (*Hautkrankheiten*, vol. i, page 125) remarks that cases had been observed in which, where the patients had previously suffered from syphilis,

an eruption of erythema papulosum had appeared both on the palms and backs of the hands.

The young woman whose case I am relating presented the appearance of vigorous health, and her ordinary medical attendant assures me that there is no room for any suspicion of syphilis. Whether the exceptional appearance of the eruption on the palms has any connection with the vaccine virus as a provoking cause, it is impossible to say, but its occurrence in this case deserves so be recorded.

M. Hardy remarked at the meeting of the Congress that he had observed a gangrenous form of vaccine eruption ending in death, but that such cases are extremely rare. Last year the dead body of an infant which had died of vaccinia gangrenosa was shown at a meeting of the Medical and Surgical Society by Mr. Hutchinson. There are yet no data by which such cases can be explained, but that they should occur need not in itself excite so much surprise. The virus produces, at its point of insertion, inflammation and destruction of tissue (cicatrix, to witness); and in its multiplication in the system it is not wonderful that inflammatory effects should be produced at certain points. Where inflammation is produced all grades of destruction of tissue are possible.

Although in the very great majority of cases no troublesome effects on the skin are produced by vaccination, it is desirable that their occasional occurrence should be fully recognized by the profession. The overpowering arguments in favor of vaccination are not weakened by such exceptional cases; and as their occurrence does not escape the notice of the public, the legitimate influence of the medical attendant can only be strengthened by his being able to admit and explain their existence—*Edin. Med. Jour., Courier of Med.*

THE PRESENT CONDITION OF THE TUBERCULOSIS QUESTION.—1. Pulmonary phthisis is not wholly a blood dyscrasia, resulting in the deposition from the blood of a peculiar element of low vitality, called tubercle; at first, in small gray granules, which aggregate, change their appearance, and become the large cheesy masses so familiar to all. A doctrine elaborated by Laennec, and still maintained by a large proportion of the German school.

2. Nor is it, as taught by Niemeyer, a simple caseous degeneration, but rather is the result of catarrhal inflammation in a scrofulous subject, whether in a bronchial or mediastinal gland, which becomes an infecting focus; as a result the tubercular element soon appears. This material of low vitality soon undergoes necrotic changes, hastening this process in the general mass. The infecting foci are constantly increased until the lung tissue is largely infiltrated. With the increase in infiltration there is a corresponding increase

in the range of temperature and rapidity of emaciation, the tubercular deposit favors this activity, as we know in cases of pure tubercular phthisis. If, then, by appropriate treatment, hygienic or medicinal, we can exclude it, the chronicity of the case is better assured, and the chances of recovery correspondingly increased. It gives a percentage of hope, where the teachings of half a century have been almost hopeless.—Dr. S. O. Vanderpoel, Trans. N. Y. State Med. Soc., *Med. News*.

REVIEWS AND BOOK NOTICES.

Prices are always inserted when furnished by the publisher, or when obtainable from the bookseller.

A Hand-book of Uterine Therapeutics and Diseases of Women. By Edward John Tilt, M. D., Past President of the Obstetrical Society of London, etc. Fourth edition. New York: Wm. Wood & Co. 1881. Octavo. Pp. 338.

Diseases of Women. Including their Pathology, Causation, Symptoms, Diagnosis, and Treatment. A Manual for Students and Practitioners. By Arthur W. Edis, M. D., London, F. R. C. P., M. R. C. S., Assistant Obstetric Physician to the Middlesex Hospital, etc. With one hundred and forty-eight illustrations. Philadelphia: Henry C. Lea's Son & Co. 1882. Octavo. Pp. 576.

A Clinical Hand-book on the Diseases of Women. By W. Symington Brown, Brown, M. D., Member of the Gynecological Society of Boston, etc. New York: Wm. Wood & Co. 1882. Octavo. Pp. 247.

The vastness of gynecological literature is becoming disproportionate to its importance as compared with general medicine. Within the past three years have appeared treatises by Barker, Munde, Goodell, Savage, Emmet, Tait, and others, covering more or less completely the ground here traversed, besides innumerable monographs, not to mention the journals devoted to this specialty.

Gynecology is having its "boom." Pedology is fairly represented. It is only andrology that is a little in the background; possibly because man's special diseases do not present so attractive a field for medical eloquence.

Tilt's Uterine Therapeutics, now published in "Wood's Library," is a reprint of the English edition of 1878, and consequently lacks the results of the experience of the past three years. Its guiding principles are: "Firstly, the paramount importance of female hygiene for the relief, cure, and pre-

vention of the diseases of women. Secondly, the constitutional origin of many diseases of women, as well as the impossibility of curing them and of preventing relapses, unless the treatment comprehends such measures as are known to favorably modify constitutional taints. Thirdly, the possibility of curing most diseases of women without surgery, by the better appreciation of old familiar remedies and sound hygiene. Fourthly, the utter impossibility of curing aggravated forms of the most common uterine affections, unless surgery be combined with medicine and hygiene."

The largest proportion of the book is devoted to gyneciatry, which is systematically presented, and the indications for medication clearly displayed. The author's position, as compared with American writers, might be considered conservative—medicine taking the lead of surgery. The style is nervous and lucid, and the book affords a large amount of well arranged information which the specialist must possess and the general practitioner will find very useful.

The work presents an attractive appearance in Wood's familiar Standard Library binding.

Of *Edis' Diseases of Women* we would say that, granting the necessity or advisability of issuing a new work on this subject, the author has provided us with a very excellent work. He dedicates his efforts to the "student and junior practitioner," but his treatment embraces the whole extent of gynecology, though condensed in form. His indebtedness to Drs. Barnes and Thomas is gracefully acknowledged. Special attention is devoted to the diagnosis of abdominal tumors, the differential points being arranged in parallel columns.

The details of treatment are comprehensive and up to the requirements of the present day. In short, though we should naturally prefer Thomas' work, a model of gynecological study, this manual of Edis will afford to the "student," etc., all the material requirements for the successful practice of this branch of medical art.

The typographical appearance is excellent, the illustrations numerous and appropriate, the binding (sheep) very good.

Brown's Hand-book "does not claim to be a treatise." "It is intended * * for the use of students and country practitioners." It includes gynecology proper, puerperal and venereal diseases. Mnemonics is utilized by grouping topics in fours on some multiple of four. A dictionary of technical terms is prefixed, which includes "clap" but not "dyspareunia."

The first chapter is on the anatomy of the genital organs. In this chapter especially we find instances of the inaccurate use of terms and indefinite construction of sentences. In the use of the word "pubes" the author is particularly unhappy. In the first place, he invariably writes it "pubis." It is generally known that the word "pubes" designates the insignia of

puberty, and etymologically may be applied to the beard as well as to the pudendal hair, etc. Custom limits its use to the latter, *i. e.*, the mons veneris with its hirsute covering. "Pubes" is a feminine collective noun, and its genitive is "pubis." By no license of speech are the cases interchangeable. Dr. Brown employs "pubis" for "pubes," also for "os" or "ossa pubis." On page 22 he has "symphysis pubis" correctly.

A similar criticism might be employed as to his use of "Douglas' sac." On page 22 he says, in reference to vaginal examination, "Our finger reaches the anterior pouch more readily than the posterior one (Douglas' sac)," and on page 48, treatment of leucorrhea, "I * * made a vaginal examination with my little finger, and succeeded in extracting a common pin, which lay transversely in the Douglas sac;" as if the sac were a portion of the vaginal cavity. But on page 91 he uses the term correctly in speaking of hematocele as intra-peritoneal.

That this is a mistake liable to be made may be inferred from the words of a modern obstetric author: "The latter fold is known as *Douglas' pouch*, or *cul de sac*. * * It is also called the recto-vaginal pouch, and lies outside and behind the superior part of the posterior wall of the vagina, but must not be confounded with the termination of the latter above the cervix uteri." (Glisan, page 42.)

The following are examples of loose or inaccurate sentences. "The vagina is a collapsed tube, about five inches long. * * in women who have borne children, is a cavity near the upper part, the rest of the canal being in contact antero-posteriorly." But is there a "cavity?" "The bulb occupies the upper vaginal wall near the entrance. * * This part has sometimes been mistaken for the womb, simulating prolapsus." Hewitt says (3d Am. Edition, p 15) "The orifice of the vagina has *on each side* (*italics ours*) of it an elongated, leech-shaped body, the *bulb* of the *vagina*, composed of a large number of tortuous veins, * * prolonged upward in the middle line to the glans clitoridis." So it appears that there are *two bulbs*. It would also seem that only a very careless observer could mistake either one of them for a prolapsed womb. "The mucous membrane lining the cervix is corrugated, and is called *arbor vite*." But it is the arboriform appearance, and not the mucous membrane, which has that designation. The following typographical errors occur in the first chapter: "Ileum" (for "ilium"), "ramii," "corporea," "clitorodectomy," [see page 16]. We would like to know what is meant by the following sentence in chapter III (p. 42) in relation to vulvitis. "When young girls are affected, suspicion of attempts at sexual intercourse, by monomaniacs, is often excited—in most cases without foundation." Is it that only monomaniacs attempt intercourse with young girls—or, what is it?

We have indicated some, but not all, of the points demanding criticism.

It is but fair to say that it is the worst chapter in the book. Our advice would be: Omit it altogether. Hewitt, Tait, Edis, and others, do not consider it necessary to prefix a chapter on anatomy, it being a subject of which every student and country practitioner may be supposed to have acquired a more or less definite knowledge.

We are far from saying that there are not many good things in this handbook. The author has borrowed largely from Sims, Thomas, Emmet and Skene, which is duly acknowledged. We have observed nothing strictly new, except an ovariectomy clamp, invented by the author. The description of the several diseases and their treatment is concise and clear. Diagnosis is rather slighted. We would say that if the student and country practitioner could not get Thomas and Barker, this would be a good manual to refer to. The book presents a pleasing appearance, with fine paper, good type, wide margins, etc., and is a credit to the publishers.

Dr. Brown resembles Sims, Emmet and Thomas—in the manner of dividing his name. But he has spared the I-am-better-than-thou affectation of adding “(Harv.)” to it.

G. A. C.

A Treatise on Diseases of the Eye. By Henry D. Noyes, A. M., M. D., Professor of Ophthalmology and Otology in Bellevue Hospital Medical College, etc. New York: William Wood & Co. 1881.

This is the December, 1881, number of Wood's Standard Library. It is very evidently written for the general practitioner, rather than the specialist; or, in other words, it is written for the instruction of the very class of men who subscribe for the Library, and not simply to advertise the author. It is thoroughly illustrated by cuts, many of which are entirely original. It constitutes one of the best books in the series.

Holmes' System of Surgery. Americanized. Vol. III. Completing the System of Surgery, Theoretical and Practical, in Treatises by various authors. Edited by Timothy Holmes, M. D. Revised by John H. Packard, M. D., Surgeon to the Episcopal and St. Joseph's Hospitals, Philadelphia. Assisted by a corps of thirty-three of the most eminent surgeons of America. Philadelphia: Henry C. Lea's Son & Co. 1882.

The contents of Vol. III are as follows: Diphtheria and croup; diseases of the larynx; diseases of the thyroid gland; apnea; diseases of the bones; excision of the bones and joints; diseases of the joints; diseases of the spine; orthopedic surgery; affections of the muscular system; diseases and injuries of nerves; locomotor ataxy; gun-shot wounds; operative and minor surgery; anesthetics; amputation; operations upon the arteries; various operations; plastic surgery; minor surgery; diseases of the breast; diseases of the skin; on parasites and the diseases which they produce; venomous insects and reptiles; surgical diseases of childhood; surgical diagnosis and regional surgery; hospitals.

. We have already testified to the manner in which the publishers have carried out their promises, and we now note the fact that the work is completed in the present volume. As American surgeons use anesthetics somewhat differently from the English, Dr. J. C. Reeve, of Dayton (than whom none better qualified could have been found), has contributed an original essay. Dr. Packard has done his work well, both as editor and contributor. He has been assisted, in this volume, by Drs. Cohen, Conner, Bartholow, and other able writers.

Geo. L. Davis, of Detroit, announces a translation of Lewin on Drugs. The translation is made from the *second* German edition, and has been submitted to the author for inspection and correction.

In the *North American Review* for May, Carl Schurz, treating of "Party Schisms and Future Problems," presents many well-considered observations which cannot fail to interest in the highest degree that large and growing class of citizens who refuse to be influenced by the obsolete party cries. "Days with Longfellow," by Samuel Ward, contains personal reminiscences of the beloved poet just deceased, extending over a period of forty-five years. Elizabeth Stuart Phelps, in an article entitled "What does Revolution Reveal?" seeks to prove that the objections brought against the Bible by modern unbelievers are based upon a misconception of the true intent and scope of the sacred volume. Lieutenant-Commander Gorringer writes of "The Navy," with abundant knowledge of its needs, and with a degree of frankness almost, if not quite unprecedented in the naval service. W. H. Mallock, the well-known English essayist, in the first of a series of "Conversations with a Solitary," very ingeniously contrives to put the advocates of democracy and modern progress on the defensive. Finally, Gail Hamilton contributes a paper, "The Spent Bullet," in which science, the pulpit and the law are, with exquisite wit, taken to task for the part they respectively played in the Guiteau-Garfield tragedy.

The Popular Science Monthly for May, 1882.—"Methods and Profit of Tree-Planting," by N. H. Egleston, is the subject that opens the May Monthly; and, in the long run and the large way, there are but few subjects more important. This is one of the cases in which the selfishness of individuals, always short-sighted, slowly culminates in great public calamity. But this paper is not a mere lament over the ruthless destruction of our forests; it is devoted to the remedy, the practical benefits, and rules of successful tree-culture. In a three-page article Herbert Spencer characterizes "Goldwin Smith as a Critic," and his estimate of him is not high. The paper of Alfred Russel Wallace on "Monkeys," is most interesting. It is

one of the freshest discussions we have seen upon a threadbare subject. R. W. Lovett discourses anew on "The Development of the Senses;" and W. Le Conte Stevens is out with a profusely illustrated article on the history of "The Stereoscope." "Measurements of Men," by Francis Galton, is a first-class article of much interest and instructiveness. The application of quantitative science to the study of human nature is a great step of progress, and Galton is doing much to promote it. Rev. E. W. Brown offers some acute and bold reflections on "Liberty of Thought;" and Miss Nina Morais answers Miss Hardaker "On the Woman Question." Her paper, trying to establish the mental equality of the sexes, is smart, if not decisive. Dr. Rutherford speculates on the causes of the "Diffusion of Odors," and offers a new theory on the subject. "The Genesis of the Sword" is a curious chapter on evolution in the arts, freely illustrated; and Dr. Swan M. Burnett discusses the somewhat overdone subject of "Color-Blindness." Mr. Le Sueur criticises the new book of Judge Stallo; and Dr. Bachelor gives some information on "The Tree that bears Quinine." There is a full and very entertaining "Sketch of Sir John Lubbock," and an unusual budget of miscellaneous matter at the close of the number. The contents of the May Monthly are varied and substantial, without being striking or exceptional. New York: D. Appleton & Company. Fifty cents per number, \$5 per year.

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Subscribers changing their location, are requested to notify the Publishers *promptly*, that there may be no delay in receipt of the journal, stating both the *new* and the *former* post-office address.

We have *no authorized Collectors*, except such as carry properly made out bills, *countersigned by the Publishers*.

HANN & ADAIR, Publishers, Columbus.

THE coming meeting of the Society promises to be of far more than usual interest, with a correspondingly large attendance of members.

The plan adopted by President Loving, of securing promises of papers just before the meeting, seems to be working admirably. Heretofore, in order that the announcement of essayists might appear in the volume of *Transactions*, it has been necessary to secure a list of *promised* papers immediately after adjournment. It is easy for one to promise for the remote future; and so it has always happened that the published list, though long, has been nearly equalled in length by the lamentable list of failures. This year, how-

ever, the promises have only been given on the very eve of the commencement of the task, and when only entirely unlooked for obstacles can interfere with the fulfillment.

The local Committee of Arrangements has already nearly completed its work, and the formal programme and circular is now in the hands of the printer.

All members that can possibly leave their business for three days, should not fail to come, and come *prepared* to discuss the papers as presented.

The following papers and reports have been promised for the next meeting of the Society, in addition to those already announced :

Sidney Norton, M. D., Columbus: "The Contamination of Drinking Water, and What Constitutes Impurities of Drinking Water."

Henry G. Cornwell, M. D., Columbus: "Cystic Tumors of the Orbit, with a Case."

A. M. Bleile, M. D., Columbus: "Digestion."

Geo. W. Garrison, M. D., Utica: "Cancer."

W. H. Christopher, M. D., Van Wert: "Practical Microscopy."

S. C. Ayres, M. D., Cincinnati: "Amblyopia Alcoholica," and "Granulations of the Middle Ear."

W. W. Seeley, M. D. Cincinnati: Report on Otology.

W. B. Davis, M. D., Cincinnati: Report on Mat., Med. and Ther.

D. Little, M. D., Logan: "Medical Electricity."

J. R. Black, M., Newark: "Preventable Diseases."

THE Thirty-third Annual Session of the American Medical Association will be held in St. Paul, Minn., on Tuesday, Wednesday, Thursday and Friday, June 6, 7, 8, 9, 1881, commencing on Tuesday, at 11 A. M.

DELEGATES TO AMERICAN MEDICAL ASSOCIATION.

J. T. Whittaker, Thad. A. Reamy, John A. Murphy, N. P. Dandridge, D. D. Bramble, H. J. Hevrick, W. J. Scott, M. C. Cuykendall, R. A. Vance, X. C. Scott, A. C. Miller, C. A. Kirkley, G. A. Collamore, W. J. Conklin, S. S. Thorne, John Davis, T. L. Neal, H. J. Donahoe, J. B. Rice, Geo. Mitchell, J. D. Robinson, J. W. McMillen, J. W. Russell, T. G. McEbright, E. H. Hyatt, R. L. Sweney, W. H. Philips, T. C. Minor, J. N. Southard, Dan. Milliken, C. C. Hildreth, H. Culbertson. Jas. Larimore, J. W. Hamilton, H. G. Landis, A. Follett.

DELEGATES TO THE KENTUCKY STATE MEDICAL SOCIETY.

G. L. Franklin, W. W. Dawson, W. H. Mussey.

TO THE INDIANA STATE MEDICAL SOCIETY.

B. B. Leonard, A. Dunlap, John H. Rodgers.

TO THE MICHIGAN STATE MEDICAL SOCIETY.

S. F. Forbes, C. H. Reed, M. C. Cuykendall.

TO THE WEST VIRGINIA STATE MEDICAL SOCIETY.

E. Pearce, Jr., Jas. McClure, J. P. Cline.

TO THE PENNSYLVANIA STATE MEDICAL SOCIETY.

J. C. Hubbard, L. M. Whiting, L. Firestone.

THE RADICAL CURE OF CANCER.—A Prize of \$1,000 is offered for the best essay on "The Probability of the Discovery of a Cure of Malignant Disease, and the Line of Study or Experimentation likely to bring such a Cure to Light." Essays must be presented not later than the first day of December, 1883.

The essays must be legibly written in English, and neatly bound. Each one must bear a motto, and be accompanied by a sealed envelope bearing the same motto, and enclosing the name of the writer.

The decision concerning the merits of the essays will be made chiefly from a practical stand-point, it being the object of the donor of the prize to obtain suggestions by which a search for a cure for cancer may be instituted. Address, J. Collins Warren, M. D., 58 Beacon Street, Boston, Mass.

PROFESSOR GROSS having resigned the chair of Surgery in the Jefferson Medical College, of which he had been the incumbent for twenty-six years, his son, Dr. S. W. Gross, has been elected to the chair of Principles of Surgery and Clinical Surgery, and Dr. John H. Brinton to the chair of Practice of Surgery and Clinical Surgery.

Dr. Richard Gundry has been called to fill the vacant chair in the College of Physicians and Surgeons by the death of Prof. E. Lloyd Howard, of Baltimore.

THE Spring Session (Graduating course) for 1882 of the Medical Department of Wooster University, Cleveland, Ohio, commenced on the 8th of March and will continue until July 1st, 1882.

The following is the Faculty, as re-organized:

Leander Firestone, M. D., L.L.D., Dean, Professor of the Medical and Surgical Diseases of Women; Akin C. Miller, M. D., Registrar and Treas., Professor of Obstetrics and Clinical Gynecology; Frank J. Weed, M. D., Professor of Principles of Surgery and Didactic Surgery; X. C. Scott, A. M., M. D., Professor of Ophthalmology and Otolaryngology; J. E. Burns, M. D., Professor of Diseases of Children; Reuben A. Vance, A. M., M. D., Professor of Operative and Clinical Surgery; Theo. A. Weed, M. D., L. R. C. P. (London), Secretary, Professor of Thoracic Diseases and Physical Diagnosis; Jamin Strong, Jr., M. D., Professor of Nervous and Mental Diseases; George Mitchell, M. D., Professor of Materia Medica and Therapeutics; H. C. Foote, A. M., Professor of Chemistry and Toxicology; L. B. Tuckerman, A. M., M. D., Lecturer on Physiology; Robert D. Alton, M. D., and Wm. C. Craven, M. D., Demonstrators of Anatomy.

We have not been informed as to the incumbents of the chairs of Practice of Medicine and Anatomy.

THE OHIO MEDICAL JOURNAL

Vol. 1.

JUNE, 1882.

No. 12.

COMMUNICATIONS.

A STUDY OF THE GENERAL PATHOLOGY OF DIPHTHERIA.

BY WILLIAM T. CORLETT, M. D., L. R. C. P., LONDON, CLEVELAND, O.

*A Paper Read before the Cuyahoga County Medical Society at Cleveland, Ohio,
March 7, 1882.*

Although the Disease under consideration had been recognized long before, as evidenced by the writings of Aetius in the sixth century, yet no accurate researches were made into the nature of diphtheria until 1826, when Bretonneau, of Paris, published his observations. This investigator called the affection *diphtherite*, which was subsequently modified by Trousseau, who, in order to free the term from the idea of inflammation expressed and taught by his master, called it *diphtherie*, from which we get the modern Anglicized name, diphtheria.

That such a disease exists none probably deny. Its clinical features, course, and termination are also pretty generally settled. But as to what diphtheria really is, its etiology and pathology, we know comparatively nothing. The German school, ever prolific in theory, comes to our rescue by offering a scheme in which the very nature, action, and peculiarities of the active diphtheritic virus, or germ, are observed, and the germ itself manipulated and even cultivated with a nicety that savors of a positivism which would convince the veriest skeptic in husbandry, but which have had the peculiar effect of surrounding the subject with general confusion. According to their theory, which has especially been scattered broadcast by the writings of Oertel, diphtheria is a disease of local origin, due to the lodge-

ment and at times subsequent absorption of specific diphtheritic germs, the micrococcus and the bacterium termo. Thus the advocates of this theory recognize two phases of the disease; one being a local affection which may never become a systemic affair, the other becomes systemic by absorption of the local manifestations of the first, *i. e.*, the micrococcus and bacterium termo.

Then comes a class of investigators who may be termed more cosmopolitan, comprising chiefly the French and English pathologists, who define diphtheria as a specific, infectious disease, occurring epidemically, endemically, and sporadically, of which the more characteristic phenomena consist in the formation of whitish membranous pellicles on certain mucous surfaces, especially those of the fauces and air passages, and on excoriated or wounded areas of skin, with the rapid development of anemia, extreme debility, and the supervention, during apparent convalescence, of temporary paralysis.

The disease may assume one of three varieties: first, there are mild cases, the catarrhal form, *angine diphtheroïde*, in which the disease only becomes manifest by the appearance of a few membranous layers which rapidly disappear and are not again produced. But however light the case may be, the patient is not less subject to a slow convalescence and to complications of diphtheritic paralysis.

In the second series of cases, comprising those of a more grave character, and in which the gravity depends not upon the extension of the false membrane to the respiratory organs, but upon its persistency, or upon the nature of the general symptoms, the anemia is extreme, the pulse is feeble and rapid, the neighboring lymphatic glands are swollen, albuminuria is generally present, and the patient may succumb from exhaustion.

Finally, there are cases in which the disease is called toxic, infectious, or malignant, and is seldom seen except with the most severe throat symptoms. This form is often manifested by special phenomena: it is more painful, the fever is higher, the membranous pellicles covering the tonsils and parts adjacent are more pulpy in appearance, gangrene sooner supervenes and spreads rapidly, the breath is fetid, dysphagia is extreme, a purulent saliva flows from the mouth, a bloody purulent oozing from the nose proves that the disease has invaded the nasal passages—a most unfortunate sign, exudations of blood occur and the skin is discolored: in short, the disease takes on the general aspect of a septic malady.

But one should not describe the varieties of diphtheria without speaking of diphtheria of the respiratory organs. In the adult the extension of pharyngeal diphtheria to the larynx is quite rare, but in children this is the rule. Trousseau noted it nineteen times out of twenty. This terrible complication occurs for the most part in cases of moderate intensity.

Respecting the etiology of diphtheria, I have little that is new to offer. That it is due to a special contagion we believe; whether this contagion is only propagated from one individual to another, or whether it originates *de novo*, like the same questions in enteric fever, recall the answer of the eminent English pathologist, Dr. Sutton, who says, "At present they are more easily asked than answered." We believe, however, the majority adhere to the former of these views, but whether the contagium is gas or solid particles floating in the atmosphere, there is only conjecture.

The observation of Oertel—"In numerous inoculations, that of various bacteria, besides the micrococcus—as, for instance, bacillus, spirillum, and bacterium lineola—were present in the matter to be inoculated, only micrococci, and the bacterium termo accompanying them, showed evidence of prolific growth, while all the other forms disappeared altogether"—would appear convincing, were it not that more recent experimentation by our distinguished countrymen, Wood and Formad, has led them to affirm that "Micrococci, indistinguishable from those of diphtheria, are found abundant in false membrane produced traumatically in the trachea of rabbits;" and they write, "We therefore conclude that these organisms are at least not characteristic of diphtheria." When such original men disagree upon such positive grounds, I think the society will excuse one who has made no research in this direction if he does not exhibit strong sentiments in support of any theory—for as yet only theory it is. Suffice it to say that the constitutional symptoms, *i. e.*, rise of temperature, together with a general disturbance of the physiological functions so constant in all systemic disorders, are observed from the first; the presence of albumen in the urine is also generally an early symptom, even before any pathological condition is detected upon the mucous membrane. Oertel says, "The examination of the urine is important even in the first days of the disease."

I think we may reasonably infer, from the data at our disposal, that the disease in question is a constitutional affection with local manifestations; that it produces false membranes, as variola produces pustules; that the influences which modify and give type to the disease vary with the epidemic and with the constitution of the patient: "*Suivant les epidemies et suivant les constitutions medicales.*"—(*Dieulafoy.*)

The pathological anatomy of diphtheria is more definite; the parts affected with the local phenomena at first present in general the aspect of an ordinary inflammation of a mucous membrane; but soon changes occur; the membrane secretes a delicate opaque layer, which increases in thickness by additions to its under surface, this opaque layer at first consists of an excessive proliferation of epithelial cells, which soon degenerate, become shrivelled and the inter-spaces filled with cells resembling leucocytes; these rapidly undergo granular degeneration; this granular degeneration occurs in the lower strata

of the false membrane; as we proceed upward the cells increase in size, are less prone to degeneration, and near the free surface are twice the size of leucocytes. This may be due to defective nutrition in the lower strata, as on account of the close proximity to the focus of inflammation the processes of nutrition are interfered with, while the cells approaching the free margin absorb from their surrounding media nutrition sufficient for their continued growth. In the air passages the changes are somewhat different; here we find a different anatomical structure; we no longer have the squamous epithelium which is firmly adherent, but the columnar ciliated variety, which detaches with facility; otherwise there are, according to Wood and Formad, Wagner and others, no anatomical differences which can be detected with the microscope between the membranes covering the fauces, or ordinary diphtheria, and those of the larynx and trachea—the so-called croup.

The latest authentional publication we have on the pathological anatomy of diphtheria says:

“The false membranes are moulded to the parts on which they occur; at the time of their formation they are of a milk white, but afterwards become yellow, grayish, and often in the adult present a gangrenous aspect; they often acquire great thickness, arranged in stratified layers, each new layer forming from the bottom; each stratification in its development depends upon the corresponding layer of epithelium, and becomes more superficial as each new layer is formed; at first the membrane is resistant, but as it becomes older it is more friable. At the autopsy the diphtheritic membrane has partly disappeared. When one examines it during life, he sees that it is formed of various elements; the epithelial cells of the mucous membrane are infiltrated with a colloid substance, (*Cornil and Ranvier*) which Wagner took for an albuminoid substance; but soon the cellular infiltration becomes changed, the cells lose their normal shape, their nucleus disappears and the infiltration becomes transformed into homogeneous masses, which are retained by downward ramifications resembling the horns of a stag (*Wagner*); from this result strata of epithelium, below which are formed globules of pus, fibrine, and sometimes hemorrhagic exudations forming islets of ecchymosis; as the disease progresses the structure of the false membrane changes somewhat in the different stages of its evolution; in the commencement the net work of epithelium with its colloid transformation preponderates; later the membrane is epithelial, fibrinous, and purulent, and in its last stage the fibrine alone is in excess. (*Leloir*.) The tissues subjacent may be either intact or ulcerated; the surrounding connective tissue and the follicles of the tonsils are engorged with white globules, explaining the cause of their considerable enlargement.

“The cardiac muscular fibre is attacked, especially in the region of the muscoli papillares, with granular degeneration; the valvular endocardium presents, in some degree, alterations similar to those described by M. Labadie-Lagrave as the lesions of endocarditis; but, according to M. Parrot, these lesions are independent of diphtheria, and are not the results of an inflammation of the endocardium.

“The blood in a case of malignant diphtheria remains fluid and is of a dark color; this same condition one finds in any grave pyrexia. The cor-

tical substance of the kidney is hyperemic, and the epithelium of the tubules is affected. The liver, especially in the malignant form of the disease, is congested. The bacteria, vibriones, spores, which have been discovered in the false membrane, have led to the supposition that there existed in diphtheria a microcosm or a special microphite; this is a subject which is at present under investigation, about which we must as present remain silent." (*Diculafoy, Manuel de Pathologie Interne, Paris, 1882*).

A few words about Diphtheritic Paralysis and I have finished. The nervous disturbances are for the most part of a paralytic nature, affecting both motor and sensory nerves; but instead of diminished nerve action we may have hyperesthesia and neuralgic pains. The nerve lesion is especially prone to affect certain centres of the great sympathetic chain, as for instance, Meckel's ganglion supplying the pharyngeal muscles, the lenticular ganglion, and, according to Dr. Hughlings Jackson, the otic ganglion has also been affected. Next in order are the nerves distributed to the extremities; the intercostals and phrenics may follow in turn, making the most grave complication of the disease. As a rule the paralytic complications occur after the throat symptoms have begun to disappear; in fact convalescence may be nearly completed; nevertheless, they may appear at any time, even without any other symptoms of diphtheria. Trousseau relates an epidemic in which patients were suddenly stricken down during a rapid march, having previously presented no symptoms of diphtheria; but subsequently developing them, while others had no paralysis but had the general symptoms of diphtheria well developed. These cases recorded by such a careful observer are of great importance; they prove that the false membranes have really only a secondary importance among the phenomena of diphtheria.

In regard to the cause of diphtheritic paralysis, various opinions have been expressed. Trousseau regards it as the general blood poisoning, (*est le resultat d'une intoxication*,) the debilitated blood becomes unfit for the proper maintenance of the normal functions of the nerve cells, hence the paralytic troubles; other diseases, when affecting the general organism and resulting in extreme asthenia, may have a like result; paralytic symptoms undistinguishable from those of diphtheria have followed typhoid fever, cholera, and variola.—(*Gubler*).

In 1862 M.M. Vulpian and Charcot published a case of diphtheritic paralysis of the roof of the palate, with alterations in the muscular fibres and the palatine nerves; later, M. Pieret described alterations in the nerves, with central nerve lesions and evidences of spinal meningitis and parineuritis of the nerve roots.

M. Dejerine (*Archives de physiologie* 1878) cites various instances in which he has verified the atrophic degeneration of the nerve tubes and the parenchyma of the anterior nerve roots following neuritis, a neuritis at the same

time interstitial and parenchymatous. But this subject is also under close investigation, and one may reserve his opinion until new observations are made public.

393 Euclid Avenue.

EXTROVERSION OF THE BLADDER.

BY C. R. FOWLER, M. D., SPARTA, OHIO.

Read Before the Knox County Medical Society.

Extrophia, or extroversion, of the bladder, eversion or turning inside out, is only met with as a congenital malformation and consists in an absence of the anterior wall of the organ with a deficiency in the corresponding parts of the abdominal parietes. It is not a common occurrence, yet frequent enough to render it important for us to be familiar with its pathology, as well as some means of relief. It occurs in both sexes, but, according to statistics, it is observed more frequently in the male, though the reason for this is not apparent. The cause of this condition is an arrest of development of the above named structures, in consequence of which the anterior portion of the pelvic girdle is deficient, the pubic bones imperfectly developed, and the symphysis entirely absent; the recti muscles become separated at their inferior attachments and pass obliquely outwards to be inserted into the lateral abutments of the pubic bones; their superior attachments remaining the same, there is necessarily left a triangular opening immediately in front of the bladder, into which open space the organ is forced, and its anterior wall becoming fused with the integument, the interior of the organ is exposed to view.

The urethra is in a state of epispadias, the posterior wall of the bladder is pushed forward by the pressure of the abdominal viscera, and in this manner there is formed a rounded tumor, just above what would be the normal point of the symphysis pubis, the size of which varies from that of an unhulled walnut to a large sized orange.

The surface of the protruded organ is red, papillated and very vascular, the slightest touch produces pain and bleeding, and it presents all indications of being covered with true mucous membrane. At the lower part of this abnormal enlargement can be seen the openings of the ureters, one on either side of the median line, from which the urine is discharged in drops or jets.

This peculiar congenital malformation is one of the most deplorable and distressing conditions that can be imagined. The odor constantly emanating from the decomposition of the urine, which keeps up a continued dribbling, is a source of great annoyance and discomfort both to the afflicted and also to those whose duty it becomes to care for him.

I will now, as briefly as possible, give a description, with the treatment, of an individual case of extrophism that came under my observation while in the office of Dr. W. J. Scott, of Cleveland :

May 20th, 1878. Miss F——, age fourteen, residence Cleveland. Father dead ; mother and two brothers and one sister living ; family history good. Miss F. presented all appearances of good health and robust constitution, and, with this one exception, she had enjoyed excellent health. On examination, there is found immediately above the pubes and in the median line, a tumor, about the size of a large orange, red, papillated, and very sensitive, bleeding if manipulated in the least. At the lower part are the openings of the ureters, indicated by little elevations upon the surface of the mucous membrane, about six or eight lines apart. About six lines below the inferior border of the tumor, and surrounded by healthy integument, was discovered, after considerable manipulating, the rudimentary vagina. This opening when moderately dilated was about the size of a goose-quill. On either side of this, and about ten lines distant, were the rudimentary labia majora, of about the shape and size of an almond. The pubic bones were considerably separated at the symphysis. Separation was so marked as to give an abnormal mensuration about the pelvis, and also quite a peculiar locomotion, difficult to describe. The parts around the tumor, the thighs, and, indeed, the entire inner surface of the lower extremities, presented an excoriated condition due to irritation produced by the continual dribbling of the urine. Perhaps one of the most interesting clinical features of this case was the alternate action of the ureters. They mostly discharged the urine in drops, but on the least excitation of the patient or of the parts, they would throw out the fluid in jets or streams, but at no time would they act synchronously, but always alternately, about six seconds intervening between each action. It was demonstrable, also, that irritation increased the quantity of urine excreted in a given time.

The patient had menstruated once previous to her appearing before the class. The flow proceeded from the small vaginal opening previously referred to, and during the period, which lasting the normal length of time, she experienced no unusual pain or inconvenience.

Owing to the extreme sensitiveness of the parts, no clothing of any kind could be tolerated, and thus from childhood she had been obliged to assume a stooping posture while walking.

Treatment.—After careful consideration Prof. Scott concluded that, in order to meet the necessary requirements of the case, it would be best to attempt the construction of some mechanical apparatus, and knowing that for some years I had been engaged in the practice of dentistry, he requested me to undertake the construction of this peculiar appliance.

I proceeded in the following manner: Placing the patient in a dorsal posi-

tion, I obtained an impression of the parts in dental plaster by the following method: In order to protect the sensitive surface from direct contact with the plaster, I covered it with several thicknesses of fine tissue paper. I then oiled the parts immediately around the tumor with olive oil to prevent the plaster adhering too firmly after hardening, and also to prevent unnecessary spreading. I next encircled the parts with a towel wrung out of warm water, which served to form a basin, into which, after careful mixing, I poured a sufficient quantity of plaster to entirely cover the tumor. After the plaster had thoroughly hardened, I carefully manipulated the entire mass until loosened, removed it, and this part of the work was finished.

From this impression the necessary casts were made, over which was swaged a silver plate, in such a manner that a close fit was obtained around the margins of the tumor, extending three or four lines over the healthy integument, so as to prevent any escape of urine beneath this marginal surface. While it was quite essential to the successful working of the plate to thus secure a close fit around the margins of the tumor, it was no less essential that the plate should be so constructed as to leave ample room between its inner surface and the tumor to insure against the two surfaces coming in contact, as the irritation thus produced would render the wearing of the plate impossible. Near the lower and central margin of the plate was made a funnel-shaped opening, around the margin of which was soldered a silver tube pointing downwards and a little outwards, about two inches long, to the lower end of which was attached a piece of rubber tubing communicating with a urinal adjusted to the inner side of the thigh. On the outer and central portions of the plate were attached silver buttons, to which the necessary appliances could be fastened to hold the reservoir in position. I may add that the task of constructing this apparatus was not an easy one, nor was the work accomplished successfully in a few days. The result, however, has far surpassed my expectations. 1st, We have a good protection and covering for the sensitive tumor; 2d, a reservoir for the urine that does not leak; 3d, a conductor that conveys the urine from the artificial bladder to a receptacle from which it can be removed at the patient's convenience.

CASES OF SMALL-POX.

BY W. J. RIGGS, M. D., PITTSBURGH, (S. S.,) PA.

As is generally known, Pittsburgh has been suffering greatly from small-pox during the past year. There has been but little cessation of the disease since last June, until within the last few weeks.

I do not propose to discuss this disease in its details, either as to its char-

acter or pathology, but to give a brief account of an important case or two which I have been called upon to treat.

Case 1. A boy, aged 11 years, rather delicately constituted, and of a scrofulous diathesis; (two years previously having had scarlet fever, accompanied by a scrofulous abscess of the neck, which gave great trouble at that time,) was attacked with small-pox on the 18th of December, 1881. I was not called until the pustules had begun to fill. He got along very well, was only blind four days, but after he had apparently recovered from the small-pox—had completely cleaned off—his joints became affected with *pyemic synovitis*; for I know of no better name by which to call it. When he first began to sit up in his bed, he complained of pain on the tip of each shoulder. I examined, and found an abscess on each, which I immediately opened with the knife. They discharged very copiously, and I ordered them poulticed with flaxseed. The next day I found both clavicles protruding about an inch and a half through the openings which I had made. I could not succeed in replacing and retaining them in their proper position, and after ten days of fruitless effort in that direction, I concluded to allow them to necrose. About this time, both elbows were attacked in a similar manner. The joints became so loose that the bones could be separated an inch without causing pain. After suppuration had taken place, I lanced each elbow near the olecranon process, and both joints discharged large quantities of pus. After they were opened they became very sore, inflamed and swollen, and I feared a destruction of the joints; but in a few days the right elbow was not sore nor tender, and soon regained its normal condition. The left kept inflamed and greatly swollen for several weeks, and at one time I thought I would have to resort to amputation in order to save his life. Soon one knee joint was attacked in the same manner as the elbows, and discharged very freely when lanced, but soon recovered.

This being a very remarkable case, and of so infrequent occurrence, I had a number of physicians to see it with me. Among them was Dr. Dickson, who thought it the most remarkable case of the kind that had ever come under his observation. Cellular pyemia after small-pox is very common, but synovial pyemia is very rare, particularly when the case recovers with the perfect use of all the joints as did the case above referred to.

Necrosis of both clavicles took place in a few weeks, but they came away under the skin and the openings soon healed. The patient had other large abscesses which greatly retarded convalescence, but did not attack the joints, and at the present writing the boy has fully recovered.

Case II.—Mr. H., aged 20 years, single, was attacked with small-pox December 2d, 1881. The disease assumed the semi-confluent form, and was very violent; patient was delirious for nearly three weeks, and blind for ten days. The scab, or crust, on his face was a quarter of an inch thick.

During the progress of the eruption, but especially after maturation began, he was annoyed with intense itching, which I kept allayed as best I could by the application of a solution of gutta-percha, to his face and neck, three or four times a day. The eruption did not confine itself to the surface of the body exclusively, but progressed down into the fauces and greatly embarrassed both deglutition and speech, and was accompanied by a profuse and annoying secretion of mucus, that greatly augmented his suffering. The inflammation attendant upon the eruption extended to the deeper structures of the skin, producing considerable swelling, which so completely disfigured his face that his most intimate friends could not recognize him, and the exhalations were exceedingly offensive. In the decline of the desquamation, the eruption assumed the form of a dry scab, and the swelling of the face greatly diminished. There was a *cluck*, which extended from the corner of his mouth to the angle of his jaw, and which conveyed the mucus, which he would cough up from his throat, into a vessel by the side of the bed, as he could neither be raised up nor turned over. We were compelled to make a small bed of cotton for him to lie on, as his hip-bones, back-bone, shoulder-blades and elbows penetrated the skin. It was fully three weeks before the scales had entirely disappeared from his face; and when they came off his head, the whole scalp came off, leaving an entirely nude and red cranium, not unlike a red beet, boiled and skinned.

When we thought we had succeeded in conducting our patient safely through his untold suffering, and were about to congratulate ourselves upon the almost unlooked-for result, he had a violent attack of diarrhea, which so greatly prostrated him that dissolution was hourly expected. After twelve hours, however, he rallied somewhat, and by careful nursing and nourishing he improved, and in a week he had greatly gained, when abscesses began to make their appearance on different parts of the body until he had sixteen in all. As a matter of course, these greatly retarded his convalescence; but notwithstanding it all he made a good recovery, and to-day is in the enjoyment of excellent health.

No. 91, Fifteenth street.

FEMORAL HERNIA—NECROPSY. INTESTINAL OBSTRUCTION—RECOVERY.

BY M. H. SPRAGUE, M. D., BEVERLY, OHIO.

1. Mrs. J., aged 76 years, rather fleshy and of delicate health, died on the 8th of April, 1882. Through the kindness of Dr. A. S. Clark, her family physician, I ascertained the following facts: About thirty years ago a solid tumor made its appearance over the region of the right saphenous

opening, but created no disturbance. For upwards of twenty years, however, she had been subject to acute attacks of "bilious colic," which made her "heart-sick." These continued to grow worse until her last illness, which lasted about ten days. During this period she suffered great pain in the region of the umbilicus, on the left side over the sigmoid flexure, and on the right side quite low down. Vomiting was violent at times and uncontrollable, and the bowels were completely shut off. Appetite gone. The patient died of prostration.

There was little or no bloating of bowels previous to death, and apparently no inflammation anywhere. Cramping of the right leg was occasionally complained of.

Autopsy: Eighteen hours after death. Present, Drs. Clark, Humston, Adair, and myself. Body well nourished. Some bloating of bowels. Rigor mortis well marked. Examination disclosed the fact that a knuckle of the ileum, about four feet or less from the ileo-cecal valve, had descended, and doubling upon itself, had become engaged in the saphenous opening, forming a globular enlargement below the rim of the opening, but not carrying any of the mesentery through the ring. Very slight force reduced the abnormality, and it came out with a sucking sound which was heard all over the room. No inflammation of any consequence had supervened in the coats of the imprisoned intestine, and its caliber was patent immediately after reduction. There was great gaseous distension of the intestine above the hernia, but below it there was emptiness and some atrophy, down the ileum to the ileo-cecal valve. The colon throughout was healthy and contained some fecal matter.

Inspection of the saphenous opening showed that an enlarged lymphatic gland lay immediately over the imprisoned intestine, and a canal, about two inches in length, extended downward from the rim of the opening and seemed to be lined with a continuation of the serous membrane. The existence of this enlarged gland was somewhat misleading, as it formed the front wall of the incarcerating chamber, and had evidently commenced forming slowly eight years before any other symptoms developed. Copious injections had been resorted to, but had failed to give relief.

2. L. M., male, aged 18, strong, of full habit, a miner, took suddenly ill on Tuesday, March 31, 1882, at 1 o'clock P. M., with pain in the ileo-cecal region; vomited; slept none during the night, being very restless.

Wednesday: Pain, vomiting and restlessness continued; slept none during the night.

Thursday: Salts given in the morning by the family resulted in a watery discharge by evening. At this point I was requested to see him. I found great tenderness of the abdomen, especially in ileo-cecal region, and here could easily be felt a tumor the size of a goose-egg, with increased heat

of surface over this spot. Pulse was slightly accelerated, very little fever, tongue covered with light brown fur, breath foul, constant desire to go to stool but no passage, urine high-colored and almost suppressed. Ordered morphia every four hours. Only one dose was given, however, and the balance of the time the young man lay in severe pain.

Friday, 10 A. M.: A warm soapsuds injection was administered of about five pints. Much pain ensued, as the hips were high and shoulders low, and it was soon expelled with violent force. The family, who had more physical than mental force, were opposed to this way of administering remedies and did not believe in obstructions, especially in the "gut." However, another injection was given in an hour, which caused severe pain and was violently expelled, followed, as was the first injection, by much mucus and some blood. Worms having previously crawled away from the patient, I now gave santaline and calomel, followed in three hours by another dose. At 1:30 P. M., a salt-and-water injection of huge dimensions was given, and after its expulsion I found in the chamber-pot a pawpaw seed, which doubtless had been stored away last fall, as he ate a great many pawpaws at that time, he said. But the family did not believe that the pawpaw seed could possibly have come out of the bowels. Mucus, blood, and thin fecal matter were also expelled at this time. Morphia was ordered. Continued injections also.

Saturday, A. M.: The last directions were completely disobeyed, but warm fomentations had been applied to the bowels. Temperature, of both patient and doctor, quite high: however, frequent attempts at stool resulted in the passage of small quantities of green-black, offensive-smelling feces.

Sunday: Pulse 90; temp., about 101°; tongue coated; very great tenderness in ileo-cecal region, with severe pain, but the tumor about gone. Bowels had moved frequently with thin fecal matter and much pain. Patient gradually gained strength for about five days, when bowels got costive again and necessitated rather a thorough physic, upon which followed the discharge of a dozen large and perfectly solid lumps of feces, which the mother, now somewhat converted, declared certainly had been there for three months or more. Much blood and mucus accompanied these, and the patient gradually recovered.

It is probable that at the ileo-cecal valve there was an obstruction of hardened feces, seeds, and perhaps worms, followed by considerable inflammation.

TO PREVENT LACERATION OF PERINEUM.

BY G. A. HARMAN, M. D., LANCASTER, OHIO.

The description, in the April issue of the *JOURNAL*, of Dr. Reamy's new plan of supporting the perineum with the object of preventing its laceration, reminds me of something on the same subject which may be worth publication.

When visiting the Foundling's Home, in New York, last summer, Dr. Chadbourn, the physician in charge, gave me his plan, which is as follows: Throw a towel over the hand, so that one edge lays across the back of the wrist, gather up the four corners in front, twist them together, and lay them along the upper part of the palm and hold them in position with the little and ring fingers; now separate the thumb and first two fingers; this movement puts the towel on the stretch between them; place the thumb upon one ramus and the finger upon the other; the tense towel will then press against and support the perineum.

This plan is probably as effective as Dr. Reamy's, and has the advantage of not requiring an assistant.

In my own opinion, supporting the perineum amounts to but little. The osseous portion of the passage is fixed, the head has to pass, and the perineum must either distend or tear sufficiently to allow it. I prefer to devote my efforts to holding the head well up into the pubic notch, and to pressing the perineum down over it.

When the perineum is rigid, and the head is advancing so rapidly and forcibly as to endanger its continuity, hold back the head to give the perineum time to distend.

I believe also that a large percentage of the lacerations are produced by the shoulder, as we might reasonably expect, when we consider that the curvature of the head makes a beautiful inclined plane, over which the perineum glides without rupture, while the shoulder, being so nearly square, presses almost at a right angle against the perineum, which has contracted close up around the neck after the delivery of the head. At this point of the labor we should recognize the danger that the shoulder may tear right through the perineum, and to prevent it I am in the habit of introducing one or two fingers within the vagina, and, while supporting the head upon the palm, placing the finger tips upon the point of the shoulder. Thus the perineum is pressed from the neck, and slips nicely over the shoulder along the inclined plane made by the fingers.

*CASE OF LEAD POISONING,**Caused by the Daily Application of Carbonate of Lead as a Cosmetic to the Hands and Face; Treated with Arsenic.*

BY H. S. GUTHRIE, M. D., HIGGINSPOET, OHIO.

Miss C., aged 19, had always enjoyed good health until April, 1881, when she complained of a metallic taste in the mouth, constipation, loss of appetite, pain, referred to the epigastrium and radiating to the limbs and other parts of the body, muscular debility, especially of the lower extremities and extensors of the forearm, pain in the abdomen, at first slight, progressively increased until at times she was compelled to resort to an opiate for relief. Emaciation and pallor soon became very apparent.

During the time from April to October, when I was requested to see her, she was treated by various physicians, who diagnosed her case as one of phthisis pulmonalis, scrofula, progressive anemia, dumb ague, etc., etc.

When I was called, Oct. 1st, to see her, she informed me that she had been confined to her bed for two months. On examination I found her in the following condition: Great emaciation and pallor; a peculiar fetor of the breath, with metallic taste in the mouth; loss of appetite; obstinate constipation; suppression of menses; lancinating pains, referred to the epigastrium and radiating through the body and extremities; tongue slightly coated with a white fur; a blue or slate-colored line around the gums. On pressure I could elicit no pain in any part of the abdomen, but found the abdominal walls flattened and rigid. On examining the limbs, I found complete paralysis of the extensors of the forearm, producing what is known as drop-wrist, and incomplete paralysis of the lower extremities. This in a few words was about her condition.

Treatment—For the first few days I was compelled to keep her under the influence of morphia, to allay the pain from which she suffered, while using the syringe to keep the bowels open. At the same time I put her on five-drop doses of Fowler's solution three times daily. In a few days she was able to dispense with the use of the morphia and syringe. I gave her no physic, except two or three small doses of Rochelle salts. I continued the arsenic until January, when she was so improved that I did not deem it necessary to continue it longer. She is now, at this writing, of a good color, has regained almost complete use of her muscles, her appetite is good, menstrual flow regular, bowels regular, and is as fleshy as she ever was.

My object in reporting this case is two-fold; first, on account of the extreme rarity of the effection as caused by the local application of lead to the hands and face; and, second, because I have never seen, in any of our books or journals, arsenic recommended as a remedy for lead poisoning. Perhaps others have had a more extensive experience with the remedy; if so, it is to be hoped that they will report.

CERTAIN QUESTIONS IN THE MECHANICS OF BONE.

BY D. D. BRAMBLE, M. D., CINCINNATI, O.

Professor of Surgery in the Cincinnati College of Medicine and Surgery.

Read before the Ohio State Medical Society, June 16, 1881.

Imagine this problem presented a mechanician; that he be required to supply an apparatus the size and weight of the human body; that he be not required to do aught else than provide what corresponds with the bones, ligaments and joints;—the contracting muscles, sentient and motor nerves, and vascular system, as well as nutritive, thermal and excretory functions, and directing and guiding principles, to come from another hand;—could human ingenuity contrive a mechanical device that would be able to stand the simple physical strain to which the structures alluded to are momentarily subjected? In other words, is there anything peculiar, in a simple physical point of view, in the mechanics of those crude and seemingly gross structures, the bones of the skeleton? If not, why should a mechanician find it impossible to construct a mechanical appliance that would do the work and stand the strain imposed on the osseous frame-work by the demand of everyday life?

To be brief, the physical problem the mechanic finds himself unable to solve is the conjunction of a shock-absorbing mechanism with the freely moving but powerful extremities. The moving organs, the muscles, must have recesses for lodgement and eminences for attachment, as well as an osseous structure to rest on that will supply them with the advantages of leverage, while the bones themselves must have a certain strength with but a given weight—powerful shafts and expanded ends, and yet but a limited quantity of bony tissue. Think of any ordinary, or even extraordinary, mechanism mounted on jointed supports moving by steps as does man's body—how many steps could be taken before the machine would be wrenched to pieces by the rough jars it would receive? Yet in the animal frame—human and comparative—this very problem is daily solved, without attracting the attention its beauty and intricacy would seem to challenge.

How happen the bones to stand an amount of physical concussion—what enables them to absorb that amount of continuous shock—which would prove fatal to the same amount of animal matter differently arranged? In the last two words is to be found the key to the problem; it is in the manner in which the bony structures are arranged, that we have the perfection of the osseous system as a shock-absorbing apparatus. We are all aware that the beam that passes across the rivulet—it matters not of what it is constituted—is a type of structure in which the amount of material employed is greatly in excess of the weight to be supported. The ingenious mechanic can take the tree trunk that makes but a rude and imperfect bridge, and by cutting it into longitudinal sections, and arranging the latter as flangs held together

by webs, he constructs beams that will make a bridge capable of sustaining a thousand-fold more weight. The operation, through untold ages, of physical forces acting upon the osseous system of the animal kingdom, has developed in the bones of living creatures such an adaptation of beams, pillars, arches and abutments, that the attentive study of the structure of segments of the long and short bones unfolds mechanical devices worthy the admiration of the skilled mechanician.

The subject is one so vast, and the time I feel like occupying so short, that I will cite but one illustration of the facts I have referred to, and for further development of the subject will ask critical study of the specimens I herewith present you.

In the hollow pillar we have the most advantageous method of arranging a given amount of material in order to support the greatest degree of weight. This fact is well known. It is not so well known—perhaps because the practical illustrations are less numerous—that a cylindrical abutment makes the best support for a series of elastic arches; yet that it does so is unquestionable, and were a mechanic required to devise a support which would possess the maximum of strength at its center, while at the same point it should occupy the least space, he would undoubtedly select a hollow cylinder; just as were it necessary for him, in addition, to make this support receive and absorb shocks, he would send forth from all points of the center of this hollow cylinder an innumerable series of elastic arches. But, as this process of shock-absorption cannot be combined with the principle of the maximum of strength in the minimum of space, the hollow cylinder would have to be enlarged, and instead of the compact material being arranged as a circle embracing a cavity, this material would necessarily require to be broken up into elastic arches extended over the expanded space needed under the new conditions. In this way the intelligent mechanic would comply with the peculiar conditions of his problem, and would produce a support, cylindrical and contracted in the center, and enlarged, but filled with elastic arches at either extremity. This apparatus would then be calculated to successfully resist weights and absorb shocks which, without the arrangement alluded to, it would be utterly unable to withstand.

A series of sections of any one of the long bones—especially the femur—will illustrate admirably the manner in which the great problem of shock-absorption is solved by nature's efforts. That no mechanical device human hands can construct, will sustain even so simple a test as that of the shocks met with and unconsciously absorbed by the osseous system of each living being in daily life, furnishes us with a remarkable illustration of the wonderful harmony and adaptability of the laws of nature, and supplies us with an illustration of the deep significance underlying what at first sight would be taken for a most prosaic feature in the animal economy.

SELECTIONS.

SURGERY.

FRACTURES OF THE SKULL, RESTRICTED TO THE INNER TABLE.—In the American edition of *Holmes' Surgery*, Dr. John A. Lidell had occasion to show that cranial fractures are restricted to the inner table much oftener than has generally been supposed. Researches made for other purposes since that was written have brought to his notice fresh evidence, not only that his views were correct, but also that this lesion occurs with even a greater frequency than he had believed, and that it unquestionably should be assigned a prominent place among the traumatic lesions of the skull, which, although not very infrequent, are very obscure or little understood, and nearly always fatal, unless promptly treated when symptoms appear.

In the *American Journal of the Medical Sciences* for April, 1882, Dr. Lidell presents some additional cases, together with a thorough exposition of the subject, and especially of the symptoms, diagnosis, and treatment. As regards the mode of production of this variety of fracture, he shows that when the skull is broken by a blow of any sort, except at the frontal or any other sinus, the fracture always commences in the side of the skull opposite to that which is struck, and the blow, in whatever way produced, must not be strong enough to break both tables. As to the termination of cranial fractures restricted to the inner table, the clinical histories of the cases Dr. Lidell has collected show that the traumatic meningitis and encephalitis usually end in speedy death, unless the causes thereof, the imprisoned fragments of the inner table, are liberated and removed by the timely performance of trephining.

THE MALIGNITY OF SYPHILIS.—Dr. L. D. Bulkley read a paper on this subject at the recent meeting of the New York State Society, with an analysis of 450 cases, in which he protested against the views recently enunciated that syphilis may be regarded as a benign disease. Dwelling upon its prevalence and varied manifestations, he concluded that it is, in point of frequency, only second to phthisis, and is closely related to scrofula and similar degenerative disorders.

He summed up as follows :

1. Syphilis is a constitutional infectious disease of which the first outward manifestation is the chancre, initial lesion, or initial sclerosis at the site of entrance of the virus.
2. While this primary lesion commonly presents points by which it may be recognized, in other instances it is very difficult to speak with positiveness

from local lesion alone, and, therefore, cases presenting only local signs must, as a rule, be excluded from any consideration of syphilis as regards the pathological tendencies of the disease.

3. In a certain proportion of cases constitutional syphilis is a mild affection, even as other infectious diseases occur with varying severity under different conditions.

4. The causes of the differences observed in certain cases of syphilis are as yet unknown. Individual constitution, surrounding circumstances, the discharge of the virus received, proper treatment, and possibly partial protection through hereditary influences of the disease, are elements of importance in every case.

5. No definite prognosis can be made from the character of the initial lesion of syphilis, as to the progress of the disease if left untreated. Cases, which at the beginning seemed insignificant, have in later years proved most serious, while, in many instances of late lesions of syphilis, no satisfactory history at all can be obtained in regard to the initial sore, it having been so slight, or so concealed, as to have escaped notice.

6. In view of the very severe and extensive manner in which syphilis may at some time during its course affect any or all the tissues of the body, and the destructive pathological tendencies of the disease under favoring conditions, syphilis cannot be spoken of a benign disease, although certain cases may, under suitable circumstances, run a very mild course.

MAMMARY GLAND, RELATION BETWEEN TUMORS OF.—Dr. S. W. Gross, (*Medical News and Library*) from an elaborate study of this subject obtains the following results :

1. That from a genetic standpoint there is a distinct connection between adenoma and carcinoma, since both originate from the glandular constituents of the gland. In the former neoplasm, however, there is a numerical increase of the lacteal glands ; in the latter, there is merely a multiplication of the epithelial cells, which extend into the lymphatic vessels and the perivascular sheaths of the blood-vessels. From a clinical standpoint, adenoma is a benign tumor, and carcinoma malignant,

2. That sarcoma has neither a genetic nor a structural affinity with adenoma or carcinoma, but that it resembles the latter in its malignant attributes.

3. That, in view of the recurring tendency of adenoma after simple enucleation, the entire breast should be extirpated with it.

4. That surgical intervention in sarcoma and carcinoma not only retards the progress of the disease by preventing dissemination and the development of visceral tumors, but it also not infrequently results in permanent recovery.

5. That local reproductions in sarcoma and carcinoma do not militate

against a final cure, provided they are freely excised as soon as they appear.

6. That lymphatic involvement does not forbid operations in carcinoma, since infected glands were removed in nearly one-third of the examples of permanent cure.

7. That the subjects of sarcoma and carcinoma are, almost without exception, safe from local and general reproduction if three years had elapsed since the last operation.

8. That all sarcomata and carcinomata of the mammary gland, if there are no evidences of metastatic tumors, and if thorough removal is practicable, should be dealt with as nearly as possible by amputating the entire breast and its integuments, and dissecting of the subjacent fascia. In carcinoma, moreover, the axilla should be opened with a view to its exploration and the removal of any glands which were not palpable prior to interference.

STYPTIC COTTON.—

Solution of chloride of iron (sp. gr. 1.480), 2 parts.
 Distilled water.....12 parts.
 Potash-alum.....1 part.
 Purified cotton.....q. s.

Dissolve the alum in the water, add the solution of chloride of iron, and soak a sufficient amount of purified cotton in the mixture. Dry it at a temperature below 140° F. Pick it up and preserve it in a stoppered bottle.

STYPTIC AND ANTISEPTIC COTTON.—

Tannic acid.....5
 Carbolic acid.....4
 Alcohol.....50
 Purified cotton.....q. s.

Dissolve the acids in the alcohol, and soak a sufficient amount of purified cotton in the solution. Dry it at a temperature below 140° F. Pick it and preserve it in a stoppered bottle.

—New Remedies.

SKIN GRAFTING, OUR PRESENT KNOWLEDGE.—(Dr. C. Johnson in *International Surgery*, vol. 1, p. 549.)

a.—It affords an admirable means of accelerating and facilitating cicatrization.

b.—The pellicle produced by its aid is less prone to contraction and contracts less than an ordinary cicatrix.

c.—The deeper layers of the epidermic elements are the chief factors of growth.

d.—The growing cicatrix is formed at the expense of the embryonal cells of the granulating surface, stimulated into activity by the presence of the living cells of the graft.

e.—The stimulus first showing energy in and about central islands of new growth, induces activity at the hitherto dormant margin of the ulcer.

f.—Grafts may retain vitality, and be effective long after separation from the body.

g.—Small grafts the size of a millet seed, for example, are generally preferable to larger ones, although much larger grafts have had their successes and advocates.

h.—Grafts should be obtained from the patient himself, if possible, but in all cases the danger of specific inoculation ought to be present in the mind of the surgeon who borrows grafts from one subject for application upon another, or who practices heteroplasty.

i.—Grafts furnished by the aged are less disposed to adhere than those obtained from the young, and sometimes fail entirely.

j.—Grafts obtained from one race of men may be successfully used on individuals of another race; and animal grafts may be transplanted upon human beings and provoke cicatrization.

k.—Foul surfaces, or those of persons in bad health, will refuse to accept good grafts; but with improvement or establishment of the health of the individual bearing an ulcer, and the appearance of healthy granulations, a favorable result of skin grafting may be anticipated.

l.—Finally, the great benefits accruing from successful skin grafting far outweigh its drawbacks, which are the pain of the operation, and, unless amputated limbs be utilized, the consecutive pain in the parts yielding the grafts, whether these be autoplasmic or heteroplasmic.

HEMORRHOIDS—SUPPOSITORIES.—*R.* Iodoform, 3 j; balsam Peru, 3 ij; cocoa butter, white wax, aa, 3 jss; calcined magnesia, 3 j. Incorporate the mass thoroughly and divide into twelve suppositories. Insert one after each evacuation of the bowels, and oftener if needed.—*Low. Med. News.*

OBSTETRICS.

THEN AND NOW.—At a recent meeting of the Cincinnati Academy of Medicine, Prof. Thad. A. Reamy, President, made the following remarks:

Nearly four thousand years ago Jacob, leaving the scenes of family disgrace, journeyed to Bethel, where God, talking to him face to face, told him to "be fruitful and multiply," promising him, if obedient, that nations, and a company of nations should be of him, and that kings should come out of his loins. Jacob obeyed, and God kept his promise. This was the beginning of the greatness of Israel. But the first case of labor which occurred after the command was fatal to the mother. Hear the record: "Rachel travailed and she had hard labour. And it came to pass when she was in

hard labour, that the mid-wife said unto her, 'Fear not, thou shalt have this son also.' And it came to pass as her soul was departing (for she died) that she called his name Ben-oni."

Who that has read this touching story of Rachel in hard labour near Ephrath, has not been moved with sympathy, and wished that, instead of an ignorant mid-wife, she had had the skill of an educated obstetrician? And yet what better skill could have been offered at so late a date as early in the present century?

In 1817 a royal princess approaching her confinement was prepared for the ordeal by "lowering the organic strength with bleedings, aperients, and low diet," and when the travail came she was allowed to remain fifty-two hours in hard labor, the child being born dead and the mother dying almost immediately after the delivery—and yet her Royal Highness Charlotte was attended by men of such great distinction as Sir Richard Croft and Dr. Baile, with the eminent John Sims in another room of the palace—and why? Because it was then thought that meddling midwifery was bad.

Since your speaker entered practice it was the rule in one of the largest and best managed hospitals in the world to prohibit instrumental interference until all hope of natural delivery was at an end. They had not learned to answer the question put in his report of 1872 by the master of the Rotunda Hospital, "Why should we permit a fellow creature to undergo hours of torture when we have the means of relieving her within our reach?" Now, however, the answer comes, with the authority of modern science and skill. Timely interference shall save the life of the child as well as that of the mother. Not "meddlesome" but conservative, skilled interference. Since the modern practice came into vogue, the mortality both to mother and child is so lessened that it may be said: yesterday was sorrow, pain, and death; to-day is joy and life.

I condemn not the men of the past, nor praise those of the present, but speak only of the "science" and the "art" then and now. And I assert that, with anesthesia, advanced knowledge of the mechanism and the physiology of labor, and the consummate skill now brought to instrumental cases, the new graduate of any reputable medical college of to-day could have successfully delivered Rachel on the plains of Edar, or Charlotte in the royal palace—*Quarterly Epitome*.

PROLONGED GESTATION.—In the May number of the *New York Medical Journal and Obstetrical Review*, Dr. L. A. Rodenstein, of New York, reports four cases of prolonged gestation, and remarks that the number of cases cited upon undoubted authority by every writer upon obstetrics, and the cases constantly reported as occurring under the personal observation of general practitioners, go to show that prolonged gestation is not a myth, and

especially that it should not be explained away by questioning the virtue of the mother. How long the duration of the period of gestation can extend beyond the normal time is not yet determined, perhaps cannot be determined, but that it may extend over two months is apparently settled. The same principle is involved, whether the uterus tolerates the presence of the child three days or one hundred and forty-five days (Professor Meig's "Report") after the natural term of gestation has expired. He believes that, after the uterus has performed its physiological function of gestation for the natural term it rests from the work of gestation proper. Why does it not, then, exercise the function of expulsion? That question he does not attempt to answer, but believes that after gestation has performed its proper and peculiar work the growth of the child is complete, and it thereafter lies dormant in the womb. Otherwise the child would grow to huge size, and its delivery in the natural way would be impossible; whereas in the cases cited the size of the child at the expiration of the period of prolonged gestation was normal.

TOTAL EXTIRPATION OF THE UTERUS THROUGH THE VAGINA.—This important operation is one of the latest conquest of modern—that is to say, antiseptic—surgery; and it is believed that statistics of future operations will give even a higher rate of success than twenty-four per cent., as shown by the cases as yet reported. In the *American Journal of the Medical Sciences* for January, 1882, there is a valuable paper on this operation, by Christian Fenger, M. D., of Chicago, with the report of a successful case.

The case was one of carcinoma of the cervix and lower half of the fundus of the uterus, of over eight months' standing, in a woman of forty. There was enlargement of the fundus, but no tangible infiltration of the broad ligaments, bladder, rectum, or vagina. Total extirpation was accomplished through the vagina, with complete recovery from the operation.

Malignant growths of the uterus have thus far been the only indications for the vaginal extirpation of that organ. Comparing the statistics of the abdominal with those of the vaginal operation, it is safe to say that whenever the total removal of the organ is indicated, and this can be done through the vagina, the latter method is preferable to the operation by abdominal section.

As regards the control of hemorrhage from the broad ligament in total extirpation, Fenger agrees with Billroth, Mikulicz and Schroeder, that ligation *en masse* is the safest and the most easily accomplished. His method of treating the peritoneal wound is in accord with Czerny and Martin, as opposed to the practice of Billroth, Mikulicz and Schroeder, in that he closes the wound throughout its entire extent as carefully as possible, while he lays great stress on the value of permanent irrigation as contrasted with drainage.

tubes, particularly when the bladder or rectum has been opened. He also describes a modified form of Mikulick's irrigator, which offers considerable advantages.

DIAGNOSTIC AND OPERATIVE DIFFICULTIES IN OVARIOTOMY.—Prof. Engelmann, of St. Louis, contributes on able paper with the above title to the April number of the *American Journal of the Medical Sciences* with the account of two cases. He emphasizes the following points as of practical importance in securing successful results:

1. Enter the peritoneum at the upper angle of the abdominal incision, mindful of the safety of an enlarged bladder.

- 2 Endeavor to secure deep and firm union of the abdominal incision by carefully and closely placed sutures during the operation, and proper support for months after.

3. Ligate all bleeding points, use the finest braided silk, cut short, and drop at once.

4. Avoid routine Listerism. Cleanliness, not carbolic acid, is necessary. Keep sponges clean and warm, but *not* carbolized; avoid carbolic acid about the peritoneum and open surfaces. Ligatures, sutures and instruments should be clean, but not carbolized.

5. Late operations are the scourge of surgeon and patient. If an operation is indicated, operate early, as the patient's chances decrease with the growth of the tumor, and the failing of health.

VESICO-VAGINAL FISTULA.—In vesico-vaginal fistula, Billroth places his patient on her back, with the legs supported by assistants, as in lithotomy. To bring the parts in position he employs Simon's speculum and spatula, and a number of retractors, held by assistants. The edges of the fistula are pared with right-and-left-handed knives; the edges of the wound are united by silk sutures; the wound is thoroughly douched with a three-per-cent. solution of carbolic acid; and the vagina well plugged with iodoform gauze. The patient is catheterized, at regular intervals, for three days. The operation is very rapidly performed, and is usually attended with perfect success.—*Phil. Med. News.*

MEDICINE.

IMPROVED TEST FOR SUGAR.—The *Test Solution* consists of $50\frac{1}{4}$ grains of pure sulphate of copper dissolved in one ounce of pure glycerine.

Qualitative Test: Two or three drops of the test solution are boiled in a test tube with half a drachm of pure liquor potassæ. Add a few drops of the urine and boil; if considerable sugar is present, the fluid will suddenly

become opaque, and rapidly turn to a canary, yellowish brown, and, on cooling, the brown cuprous oxide may be found in the bottom of the tube. If less sugar is present, more urine must be added. If the above reaction does not occur after adding an equal amount of urine, no sugar is present. *Precautions:* The precipitate of cuprous oxide is granular, not flaky; and the precipitation of the whitish, grayish, or brownish flocculi of phosphates, which always occurs in alkalized urine, should never be mistaken for the dense, opaque, yellowish urine containing cuprous oxide, or the bright, heavy, granular, yellowish, or brownish precipitate of the same.

Quantitative Test: If albumen be present, it must be removed by coagulating with acetic acid and filtering.

One drachm of the test fluid is measured into a morphine or quinine bottle, and about two drachms of pure liquor potassæ and an equal amount of water added (the two latter need not necessarily be measured). This is put upon a stove or over a lamp, the flask resting on wire gauze or a tin plate. If the urine contain much sugar (as indicated by the qualitative test), it should be diluted with a measured quantity of water.

The measured urine (say $\frac{1}{2}$ oz.) and the water (say $1\frac{1}{2}$ ozs., making two ozs. in all) are dropped from a graduated glass into the test fluid and brought to the boiling point, a few drops being added at a time. This is continued until the opaque brownish mixture becomes yellow; the urine is then more carefully dropped, and allowed to cool a little after each boiling.

A small bit of filter paper is held over a small test tube, and a drop or two of the mixture filtered through from time to time; the filtrate is tested each time for sugar with a drop of the glycerine solution. As soon as a precipitate results from this union, the process is terminated. One grain of sugar has been neutralized.

Now, read off the graduate how much fluid has been used. Let us suppose six drachms were used. One-fourth of this was urine. We therefore have one grain of sugar in every one and a half drachms of urine.

—Oppenheimer, in *Trans. Ind. St. Med. Soc.*

SOLVENT FOR GALLIC ACID.—Mr. Frederick Long (*Brit. Med. Jour.*) has found that twenty grains of citrate of potassium will dissolve fifteen grains of gallic acid in an ounce of water.

IODOFORM PNEUMONIA.—Dr. Aschenbrand (*Deut. Med. Wochen*) claims that iodoform, by its irritant action on the bronchial mucous membrane, may produce pneumonia. He cites three cases where fatal pneumonia was produced in cats by iodoform applied to wounds in the neck, and one case where inhalations of iodoform produced the same result.

CEREBRAL HYPEREMIA TREATED BY BAUNSCHUITISM.—Dr. Max Buch (*Archiv d. Psych.*):

Five cases of headache in which hyperemia of the brain is assumed as the cause without that condition being proved, are reported as having been cured by Baunscheitism. By means of the little instrument invented by Baunscheit, which is a cupper, the blades being replaced by needles which are so arranged that they may spring into the skin only through the epidermis, little holes are made along the vertebral canal, into which a mixture of equal parts of croton oil and turpentine is rubbed. A papular eruption ensues, which in a few hours becomes pustulous. In three to four days the pustules dry, and in about a week the skin is normal again. The part should be covered with cotton, and the patient kept in the house for three days. This method is very efficacious without being troublesome or painful.

The mode of action of counter-irritants has been made clear by modern physiological investigations, it having been found by Heidenhain that irritation of a peripheral sensitive nerve causes irritation of the vaso-motor center in the medulla oblongata, and consequent contraction of the artery throughout the body. At the same time the rapidity of circulation is increased so that the periphery receives more blood than under normal conditions, and its temperature is raised, that of the interior falling. Schueller found that when a large mustard plaster was applied to the back or abdomen of a rabbit, the vessels of the pia mater first dilate and then soon contract, remaining in the latter condition for some time after the plaster is removed. If the initial irritation be slight no dilatation precedes the contraction of the pial vessels. Baunscheitism certainly gives the desired feeble, long-continued irritation, and it may be that when this method passes from the hands of quacks into those of scientific physicians good results may follow its use.—*Pacific Med. and Surg. Jour.*

TYPHOID FEVER CONSIDERED AS FECAL INTOXICATION.—Dr. Jules Guérin (*Amer. Jour. Med. Science*, Oct. 8) says: For a long time the deposits of human excrement were considered to be susceptible to contribute to the development of typhoid fever. This opinion, expressed with a certain character of generality, and, besides, deprived of any serious demonstration, had remained in conflict with all opinions of the same kind. Up to what point was it founded? In what measure, under what form, in what conditions, could the fecal excretions have a share in producing typhoid fever? In order to elucidate, if not to solve, these various questions, the author of this work has given himself up to experiments upon animals and to clinical researches, which have led him to the following conclusions: (1) The specific diarrhetic matter of those affected with enteric fever, contains at

its exit from the body toxic elements resulting from the fermentation of fecal matters, retained and accumulated at the end of the small intestine, behind the ileo-cecal valve. (2) The organic lesion, considered heretofore as specific signs of typhoid fever, congestion, ulceration of the mucous membrane, alterations of the glands of Brunner, Peyer's patches and mesenteric glands, are effects of the virulent and ulcerative action of typhoid matters on these parts; and the functional troubles or the general symptoms of the illness, are, at the same time, the result of the penetration of these same matters into the organism, and of the organic changes which they determine. (3) The complications which present themselves in the course of typhoid fever, under the form of meningitis, pleurisy, pneumonia, and other marked affections, are only more distinct localizations of its poisonous principle, just as those illnesses which begin at the outset with typhoid symptoms, are in themselves nothing but primitive effects of fecal poisoning. (4) Typhoid poison engendered by fecal fermentations spreads itself incessantly abroad by all the excretory ways of the body, from whence the transmissibility of the illness and the formation of seats of infection, susceptible of reproducing it in an endemic and epidemic form. Every one of these propositions has been the object of experiments, and of clinical and anatomo-pathological observations, stated in three memoirs read before the Academy of Science and Medicine in Paris, in the years 1877 and 1878, with proofs to the point. The author will reproduce both before the Fourth Section of the International Congress, and will accompany them by observations and new experiments, which have only tended to confirm him in his opinion.—*Detroit Lancet*.

THE TUBERCLE PARASITE—A NEW THEORY OF CONSUMPTION.—Prof. John Tyndall gives the following luminous account of Dr. Koch's investigations in a letter to the *London Times*:

On the 24th of March, 1882, an address of very serious public import was delivered by Dr. Koch before the Physiological Society of Berlin. It touches a question in which we are all at present interested—that of experimental physiology—and I may, therefore, be permitted to give some account of it in *The Times*. The address, a copy of which has been courteously sent to me by its author, is entitled "The Etiology of Tubercular Disease." Koch first made himself known by the penetration, skill and thoroughness of his researches on the contagion of splenic fever. By a process of inoculation and infection he traced this terrible parasite through all its stages of development and through its various modes of action. This masterly investigation caused the young physician to be transferred from a modest country practice, in the neighborhood of Breslau, to the post of Government Advisor in the Imperial Health Department of Berlin.

From this department has lately issued a most important series of investigations on the etiology of infective disorders. Koch's last inquiry deals with a disease, which, in point of mortality, stands at the head of them all. If, he says, the seriousness of a malady be measured by the number of its victims, then the most dreaded pests which have hitherto ravaged the world—plague and cholera included—must stand far behind the one now under consideration. Koch makes the startling statement that one-seventh of the deaths of the human race are due to tubercular disease, while fully one-third of those who die in active middle-age are carried off by the same cause. Prior to Koch it had been placed beyond doubt that the disease was communicable; and the aim of the Berlin physician has been to determine the precise character of the contagium which previous experiments on inoculation and inhalation had proved to be capable of indefinite transfer and reproduction. He subjected the diseased organs of a great number of men and animals to microscopic examination, and found, in all cases, the tubercles infested with a minute, rod-shaped parasite, which, by means of a special dye, he differentiated from the surrounding tissue. It was, he says, in the highest degree impressive to observe in the centre of the tubercle cell the minute organism which had created it. Transferring directly, by inoculation, the tuberculous matter from diseased animals to healthy ones, he in every instance reproduced the disease. To meet the objection that it was not the parasite itself, but some virus in which it was imbedded in the diseased organ, that was the real contagium, he cultivated his bacilli artificially, for long periods of time and through many successive generations. With a speck of matter, for example, from a tuberculous human lung, he infected a substance prepared, after much trial, by himself, with a view of affording nutriment to the parasite. Here he permitted it to grow and multiply. From this new generation he took a minute sample and infected therewith fresh nutritive matter, thus producing another brood. Generation after generation of bacilli were developed in this way, without the intervention of disease. At the end of the process, which sometimes embraced successive cultivations extending over half a year, the purified bacilli were introduced into the circulation of healthy animals of various kinds. In every case inoculation was followed by the reproduction of the parasite and the generation of the original disease.

Permit me to give a further, though still brief and sketchy, account of Koch's experiments. Of six guinea-pigs, all in good health, four were inoculated with bacilli derived originally from a human lung, which in fifty-four days had produced five successive generations. Two of the six animals were not infected. In every one of the infected cases the guinea-pig sickened and lost flesh. After thirty-two days one of them died, and after thirty-five days the remaining five were killed and examined. In the guinea-pig that died, and in the three remaining infected ones, strongly pronounced tuber-

cular disease had set in. Spleen, liver, and lungs were found filled with tubercles; while in the two uninfected animals no trace of the disease was observed. In a second experiment, six out of eight guinea-pigs were inoculated with cultivated bacilli, derived originally from the tuberculous lung of a monkey, bred and rebred for ninety-five days, until eight generations had been produced. Every one of these animals was attacked, while the two uninfected guinea-pigs remained perfectly healthy. Similar experiments were made with cats, rabbits, rats, mice, and other animals, and without exception it was found that the injection of the parasite into the animal system was followed by decided and, in most cases, virulent tubercular disease.

In the cases thus far mentioned inoculation had been effected in the abdomen. The place of inoculation was afterward changed to the aqueous humor of the eye. Three rabbits received each a speck of bacillus-culture, derived originally from a human lung affected with pneumonia. Eighty-nine days had been devoted to the culture of the organism. The infected rabbits rapidly lost flesh, and after twenty-five days were killed and examined. The lungs of every one of them were found charged with tubercles. Of three other rabbits, one received an injection of pure blood-serum in the aqueous humor of the eye, while the other two were infected in a similar way, with the same serum, containing bacilli derived originally from a diseased lung, and subjected to ninety-one days' cultivation. After twenty-eight days the rabbits were killed. The one which had received an injection of pure serum was found perfectly healthy, while the lungs of the two others were found overspread with tubercles.

Other experiments are recorded in this admirable essay, from which the weightiest practical conclusions can be drawn. Koch determines the limit of temperature between which the tubercle-bacillus can develop and multiply. The minimum temperature he finds to be 86° Fahrenheit and the maximum 140°. He concludes that, unlike the bacillus anthracis of splenic fever, which can flourish freely outside the animal body, in the temperate zone animal warmth is necessary for the propagation of the newly discovered organism. In a vast number of cases Koch has examined the matter expectorated from the lungs of persons affected with phthisis, and found in it swarms of bacilli, while in matter expectorated from the lungs of persons not thus afflicted, he has never found the organism. The expectorated matter in the former cases was highly infective, nor did drying destroy its virulence. Guinea-pigs infected with expectorated matter which had been kept dry for two, four, and eight weeks respectively, were smitten with tubercular disease quite as virulent as that produced by fresh expectoration.

Koch points to the grave danger of inhaling air in which particles of the dried sputa of consumptive patients mingles with dust of other kinds.

It would be mere impertinence on my part to draw the obvious moral from these experiments. In no other conceivable way than that pursued by Koch could the true character of the most destructive malady by which humanity is now assailed be determined. And, however noisy the fanaticism of the moment may be, the common sense of Englishmen will not, in the long run, permit it to enact cruelty in the name of tenderness, or to debar us from the light and leading of such investigations as that which is here so imperfectly described. Your obedient servant,

Hind Head, April 20th.

JOHN TYNDALL.

THE CORRELATION OF MEDICINE, SURGERY, AND HISTOLOGY.—Dr. W. H. Van Buren (*International Surgery*) says: Curling first called attention to the relation between burns of the surface of the body and the ulceration of the duodenum that so often accompanies them. Erichsen emphasizes the fact that death ascribed to the shock of injury and to exhaustion, is often explained in the dead-house by the discovery of laceration of the liver. Jacoud and Ferrier have obtained most of their illustrations of intracranial pathology from well-observed cases of surgical injuries of the head. The histologist has taught us that senile gangrene, formerly attributed to arteritis, is in fact caused by calcific degeneration of the arterial coats, and by thrombosis and embolism; and that arteritis, formerly supposed to be common, is in reality a rare occurrence.—*Lancet*.

Dr. West, the great opponent of the identity of croup and diphtheria, now declares his conversion to the opposite view.

REVIEWS AND BOOK NOTICES.

Prices are always inserted when furnished by the publisher, or when obtainable from the bookseller.

The Incidental Effects of Drugs. A Pharmacological and Clinical Handbook. By Dr. L. Lewin, Assistant at the Pharmacological Institute of the University of Berlin. Translated by W. T. Alexander, M. D. New York. Wm. Wood & Co. 1882. 8vo. Pp. 239.

The occasional, unexpected, accidental, or incidental effects of drugs, as manifested upon the skin, have been heretofore described as some length, but so far as we know this is the first attempt to group all these unexpected manifestations of drug action in one distinct treatise.

The author, after an interesting introduction, takes up the different classes

of remedies and gives the details of each individual drug in order. Even the most recent additions to the materia medica are not omitted. The book contains a vast amount of unique information.

The task of the translator has been unusually well done.

Transactions Virginia State Medical Society, 1881.

The address of the President, Dr. Hunter McGuire, is on the subject of Cancer of the Breast. He views it principally from a clinical stand point, paying little attention to the pathology. He therefore divides all mammary tumors into either the malignant or benign. As the latter may, in various ways, become the former, he advises that all tumors be cut out, excepting, perhaps, a stationary fibroma. He does not believe in temporizing with measures looking to absorption. In the after-treatment, he recommends that the hypophosphites of lime and soda * be taken for several months. He is quite sure he has seen this remedy produce good effects.

Under Advances in Anatomy, Dr. Tompkins reports on the brain of a negro, who died in the Lunatic Asylum, which weighed, after draining for two hours, 70 ounces! The brain substance seemed normal. The man had homicidal mania, was rather stupid, a pure black, and died of consumption. His skull measured antero-posteriorly, eight and three-fourths inches; transversely, six and three-eighths inches; vertically, six inches; which is about one inch more in each direction than the average Caucasian.

Dr. Semple reports favorably on Chloroform as an emetic. He gives it in doses of a teaspoonful, in cases where the stomach is overloaded, as in cholera morbus, etc. It produces easy and free emesis, without subsequent nausea. He also recommends chloroform as an anthelmintic in combination.†

Dr. Manson regards Cholera Infantum as of malarial origin, and hence uses quinine, preceded, in the early stage of the disease, by calomel.

The same author contributes a paper of sixty-six printed pages on the Physiological and Therapeutical action of Quinine. As he has taken the pains to copyright his article, we will leave him in quiet possession, utilizing our space for more valuable matter.

As only thirty-four members were in attendance, the meeting cannot be regarded as a success numerically, although the papers—not all of which we have noticed—were above the average.

*R. Hypophosphites of lime and soda.....	℥ss.
Dilute phosphoric acid.....	℥ss.
Distilled water, ad.....	℥viiij.
M. Sig. Teaspoonful in water three times a day.	
†R. Chloroform.....	℥j;
Ol. ricini.....	℥j;
Ol. tigllii.....	gtt. j.
M. Sig. Dose, ℥ss to ℥ss.	

Kansas State Medical Society, 1881. Pp. 160.

The papers in this volume are of average grade. Several rare cases are reported, especially one of *osteo-malacia* by Dr. Schenck, of Osage City. The editorial work on the book is simply outrageous. In several cases the names of the authors do not appear in connection with their papers, and in others the name appears but not the address.

Soluble Compressed Pellets. A new form of remedies for Hypodermic use and applicable to Ophthalmic and General Medication. By H. Augustus Wilson, M. D., Ophthalmic and Aural Surgeon to St. Mary's Hospital, Philadelphia. (Reprint from the transactions of the American Medical Association.)

The active ingredient in these pellets is simply compressed, in combination with sulphate of soda. The latter renders the bulk more manageable, and causes the mass to dissolve readily in water. The pellets are chiefly recommended for hypodermic medication and for use in ophthalmic practice, but can also be given internally. We have found them very convenient.

The Presentation of the Head and Feet. By Henry G. Landis, A. M., M. D., Professor of Obstetrics, etc., in ~~Stating~~ ^{Stating} Medical College, Columbus, O. (Reprint from Am. Jour. of Obstet. and Dis. of Wo. and Chil. New York: Wm. Wood & Co. 1882.)

The author adds to the very scanty literature (five cases) on this subject, four cases hitherto unreported, three of which occurred in his own practice. He recommends: first, to replace the prolapsed members if possible; second, if not, to make moderate efforts to turn; third, if this cannot be accomplished readily, to perforate and deliver. The application of the forceps after failure to turn would seem to be clearly needless.

An Index of Surgery. Being a concise classification of the main facts and theories of surgery, for the use of senior students and others. By C. B. Keatley, F. R. C. S., Senior Assistant Surgeon to the West London Hospital; Surgeon to the Surgical Aid Society. New York: Wm. Wood & Co. 1882.

The same, published by Bermingham & Co. New York: 1882.

These are two editions of the same work, which is intended chiefly for the senior students of the English colleges after careful study of the more thorough text-books on surgery. It is a work likely to be useful also to the general practitioner when confronted by possible emergencies. The book has been carefully compiled, and the classification is simple and easily comprehensible. The two editions are practically alike, and while the rivalry manifested is not, probably, very profitable to the competing houses, it seems to indicate the value of the book itself, and is thus very complimentary to the author.

Illustrations of Dissections. In a series of colored plates the size of life representing the dissection of the human body. By Geo. Viner Ellis, Prof. of Anatomy in University College, London; and G. H. Ford. (Reduced on a uniform scale, and reproduced in fac simile, expressly for Wood's Library.) Vol. II. Second Edition. New York: Wm. Wood & Co. 1882.

The first volume of this work has already been noticed. The second volume is similar to the first, and completes the subject. Together they constitute a fine work on anatomy, either for study or reference.

Homeopathy, What Is It? A statement and review of its doctrines and practice. By A. B. Palmer, M. D., LL.D., Prof. of Prac. of Med., College of Med. and Surg., University of Mich. Second edition. Detroit: George S. Davis. 1881. 8vo. Pp. 109.

This seems to be a fair review of the history of homeopathy. The first edition attracted considerable attention, but its statements have never been successfully contradicted. Those interested in the matter cannot probably find a better *resume*.

● ———

Lectures on Venereal Diseases. By W. F. Glenn, M. D., Prof. of Anat. and Venereal Diseases in the Med. Dept. of the University of Tenn., etc., etc. Nashville, Tenn: Wheeler & Osborn. 1881. 8vo. Pp. 260.

This is a small work, consisting of the lectures which the author delivered before the class, and which are now published in response to the unanimous wish of members of the class. The statements are concise, and, naturally, somewhat dogmatic: but the book is an excellent one for the student who wants facts and accepted doctrines, and does not care for unprofitable discussions or long quotations from authorities.

North Carolina State Medical Society. 1881. Pp. 128.

The President's address, by Dr. R. B. Haywood, is an exceedingly racy description of the errors of the past, in which the writer endeavors also to show that it is frequently Nature and not the doctor that cures.

Dr. Sexton reports a case of aneurism of the orbit cured by ligating the carotid.

Dr. Harnaday, of Willow Green, reports a case of *ainhum*—a rare disease, peculiar to the negro, in which the little toe is finally cut off by a gradually deepening fissure.

The other papers consist of Reports in the various departments of medicine, made up by selections from the journals.

Home and Climatic Treatment of Pulmonary Consumption—on the Basis of Modern Doctrines. By J. Hilgard Tyndale, M. D. New York: Birmingham & Co. 1882.

The book is dedicated to Professor Alfred L. Loomis, of New York City, which is the only commendable feature about it.

The preface tells us, "The object of this little book is to present to the profession in a readable and easily assimilable form the most approved methods and lines of treatment of consumption, which I have endeavored to present strictly upon the basis of modern doctrines."

From his Pathology of Consumption, "taken from my forthcoming publication, Present Status of the Pathology of Consumption," we learn "the round corpuscles may undergo shrinkage, and are then called cheese." "The previously healthy tissue cut off from the nutrient supply, makes an attempt to regain the juvenile condition, but shrinks before accomplishing it, and then is known as tubercle." The reader will admit that these are very "readable, and easily assimilable" definitions of cheese and tubercle.

On page 17 we read of a "*previously superficial catarrh*," and of a process passing its "*initial stages*."

As to the aims of treatment, on page 23 we learn "What we have to and are able to cope with chiefly, are the decreasing, *the lessening of the noxious influences on the one hand, and of the ever present feebleness and depression of the circulation on the other.*"

On page 162, "No climate upon the earth has had so much said or written for or against it as California. This "*easy assimilability*" of climate and California, to use a slang term, "beats the deck."

For bombastic and egotistic dogmatism, and for execrable writing of what is probably meant for the English language, this book takes the palm.

On page 38 the author says: "There are instances of an hereditary insufficiency of the digestive organs, oftenest found in infants whose life is thereby shortened, and of whom we say they are '*not visible*.'"

Why such a book has been written is "*not visible*."

K.

BOOKS AND PAMPHLETS RECEIVED.

Reform in Medical Education the Aim of the Academy. Annual address delivered before the American Academy of Medicine, at New York, Sept. 20, 1881. By Edward T. Caswell, M. D., President of the Academy.

Anesthesia and Non-Anesthesia in the Extraction of Cataract. With Some Practical Suggestions Regarding the Performance of This Operation and Comparative Statistics of Two Hundred Cases. By Hasket Derby, M. D., Surgeon to the Massachusetts Charitable Eye and Ear Infirmary; to the Carney Hospital, etc.

The writer prefers non-anesthesia. The paper is a valuable one.

Atlantic City as a Winter Health Resort. By Boardman Reed, M. D. Philadelphia: Allen, Lane & Scott's Printing House.

The Surgery of the Pericardium. By John B. Roberts, M. D., Brooklyn, N. Y.: Annals of Anatomy and Surgery. 1881.

Observations on the Origin Character and Treatment of Oinomania. By T. L. Wright, M. D., Bellefontaine, Ohio. Reprint from the *Alienist and Neurologist*, St. Louis, 1881.

Chronic Club-Foot Successfully Treated without Tenotomy by Continuous Extension and Stretching. By James S. Green, M. D. Reprint from the *New York Medical Journal and Obstetrical Review*.

Preliminary Observations on the Pathology of Sea-Sickness. By J. A. Irwin, M.A. Cantab; M.D. Dub., Member of the Royal College of Surgeons of England, etc.; late Hon. Physician to the Manchester Southern Hospital, etc. Philadelphia: P. Blakiston, Son & Co.

Uterine Massage as a Means of Treating Certain Forms of Enlargement of the Womb. By A. Reeves Jackson, A. M., M. D., formerly Surgeon-in-Chief of the Woman's Hospital of the State of Illinois. Reprinted from Vol. V., Gynecological Transactions, 1881.

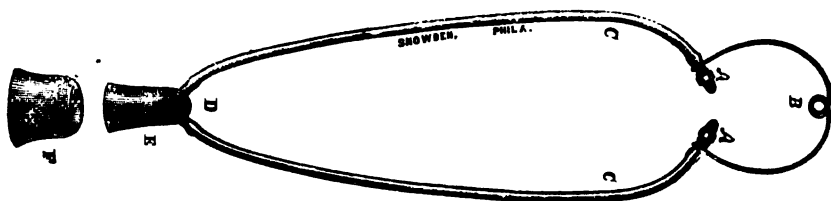
Ovariectomy; Difficulties Diagnostic and Operative; Continued Menstruation after Double Ovariectomy. By George J. Englemann, M. D., Prof. of Obstetrics in the Post-Graduate School of the Missouri Medical College; Fellow of the American Gynecological Society; of the London Obstetric Society, etc. From the American Journal of the Medical Sciences, April, 1882.

The Quality of Mental Operations Debased by the use of Alcohol. By T. L. Wright, M. D., Bellefontaine, Ohio.

A Case of Basedow's Disease. Terminating in Total Loss of Sight from Neuro-Paralytic Inflammation of the Cornea. By Henry G. Cornwell, M. D., Clinical Lecturer on Ophthalmology and Otology, Starling Medical College. Columbus, Ohio: 1881.

Post-Partum Atrophy of the Uterus. By Walter Coles, M. D., Consulting Physician to the St. Ann's Lying-in Asylum, St. Louis.

Atresia of the Vagina and Uterus. By A. F. Erich, M. D., Professor of the Diseases of Women, College of Physicians and Surgeons, Baltimore.

NEW INSTRUMENTS.

SNOWDEN'S BINAURAL STETHOSCOPE.—This consists of a hard wood bell, with a soft rubber cup; to the former are attached, by nipples, flexible rubber tubes which connect with the ear pieces; these ear pieces, which are fitted with rubber pads to secure easy and close contact with the auditory meatus, are held in position on the head by a wire spring. The whole is finely finished, and is unexcelled in its acoustics. The tubes are not covered by woolen or silk, hence are free from the rustling found in the ordinary instruments. Price, post paid, \$3.00.

WHALEBONE FILIFORM BOUGIES.—Filiform bougies have been found so useful and effective in the treatment of stricture of the urethra that they are now to be found in the armamentarium of nearly every physican. A Filiform (or a number of them used together) in conjunction with a tunnelled sound, will frequently pass a stricture not to be entered by any other instrument. Many of the Filiforms hitherto used have been found unreliable, being easily broken, carelessly finished, having rough edges to irritate the parts, or retain unhealthy secretions, and being made of varying qualities of whalebone; they are often either so stiff as to break when in use, or so flexible that sufficient force cannot be used to attain the end in view.

We have just received a case of them, however, from Mr. William Snowden, the well known instrument dealer of Philadelphia, which are beautifully finished and of just the right degree of stiffness. The cut shows them reduced to about one-third in size.

William Snowden, No. 7 S. Eleventh street. Price: One dozen in metal case, \$3.00; 35 cents each, be mail.

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STATE SOCIETY PROGRAMME.

The following papers are promised, and as the promises are all freshly made they will probably all be kept:

- a Joseph Ransohoff, M. D., Cincinnati: "Progress of Surgery."
- b N. P. Dandridge, M. D., Cincinnati: "Surgical Diseases of the Genito-Urinary Organs."
- c Jas. Larimore, M. D., Newark: "Acute Peritonitis, Localized and General."
- d H. G. Landis, D. M., Columbus: "Progress of Obstetrics and Gynecology."
- e W. C. Chapman, M. D., Toledo: "Present Status of Therapeutical Inquiry."
- f D. H. Brinkerhoff, M. D., Fremont: "Exanthemata."
- g H. A. Tobey, M. D., Dayton: "Report on Insanity."
- h Reuben A. Vance, M. D., Cleveland: "Surgery of the Arteries."
- i S. S. Thorn, M. D., Toledo: "Abscesses of Perineum."
- j John A. Murphy, M. D., Cincinnati: "Functional Diseases of the Nervous System."
- k D. N. Kinsman, M. D., Columbus: "The Etiology of Consumption."
- l E. B. Pratt, M. D., Mt. Sterling: "Treatment of Inflammation of the Knee Joint."
- m C. A. Kirkley, M. D., Toledo: "Epithelioma of the Cervix Uteri."
- n Geo. A. Collamore, M. D., Toledo: "Report on the Progress of Medicine."
- o Wm. Morrow Beach, M. D., London: "Achievements and Failures in the Medical Art."
- p Sidney Norton, M. D., Columbus: "The Contamination of Drinking Water, and What Constitutes Impurities of Drinking Water."
- q Henry G. Cornwell, M. D., Columbus: "Cystic Tumors of the Orbit, with a Case."
- r A. M. Bleile, M. D., Columbus: "Digestion."

- s Geo. W. Garrison, M. D., Utica: "Cancer."
- t W. H. Christopher, M. D., Van Wert: "Practical Microscopy."
- u S. C. Ayers, M. D., Cincinnati: "Retinitis Albuminurica," and
"Granulations of the Middle Ear."
- v W. W. Seeley, M. D., Cincinnati: Report on Otology.
- w W. B. Davis, M. D., Cincinnati: Report on Mat. Med. and
Ther.
- x D. Little, M. D., Logan: "Medical Electricity."
- y W. B. Hedges, M. D., Delaware: "Treatment of Pneumonic
Fever."
- z H. B. B. Montgomery, M. D., Gilboa: "Medical Ethics."
- a¹ Joseph Eichberg, M. D., Cincinnati: "Report on the Progress
of Laryngology."
- b¹ Thad. A. Reamy, M. D., Cincinnati: "Uremia and its Treat-
ment."
- c¹ Chas. P. King, M. D., Newark: "Trichina Spiralis."

Prof. Edward Orton, of the State University, will deliver an address on the evening of the first day (Tuesday) on "The Relation of the State to Public Health."

Dr. J. R. Black, of Newark, will lecture on the evening of the second day (Wednesday) on "Preventable Diseases."

The different Railroads entering Columbus will sell round trip tickets to Delegates and Members at four cents per mile one way, upon presentation to the local agent of the proper Certificate.

These Certificates will be forwarded on application to the Secretary of the State Society. Members and Delegates making application for Certificates must mention the name of the road over which they propose to come.

ALTHOUGH the list of papers announced is a good one, and few failures anticipated, it will not be prudent for any essayist to take license from this and think that *one* failure will not count.

**PROPOSED CHANGES IN THE NEW CONSTITUTION AND
BY-LAWS OFFERED LAST YEAR; RECOMMENDED
BY THE COMMITTEE ON REVISION.**

Art. III, Sec. 2. Strike out all after "*ex officio*."

Art. III, Secs. 4 and 5. Strike out all, and insert: "The Permanent Members shall be regular practitioners of medicine in the State of Ohio, shall be graduates of a medical college in good standing, shall be members of a county or district medical society, and their election shall require a majority vote at a regular meeting, their eligibility having been previously reported upon by the Committee on Admissions. Every applicant for permanent membership shall deposit with the Treasurer the sum of \$3.00 as a mem-

bership fee, and also the dues for the current year (which sums shall be returned to him if his application is rejected). Permanent members alone shall transact the legislative business of the Society. Permanent Members who may remove from this State shall, upon their request, be styled Non-resident Permanent Members, and shall, without payment of dues, be entitled to all the rights and privileges of Honorary Members. Non payment of dues for three years shall work a forfeiture of membership."

Sec. 6. Strike out all of second line, except "as."

Sec. 7. Insert the word "Delegates" before "Honorary Members."

Art. IV. Strike out Section 2.

Sec. 5. In first line strike out "Every" and insert instead "The Secretary of each;" also strike out "at a regular meeting." In ninth line strike out "Society" and insert "Secretary." Strike out the last clause.

Sec. 6. Strike out all except the last clause, in which (in third line) strike out "members" and insert "delegates."

Sec. 7. In the first line, after the word "members" insert "who are also members of this Society."

Art. V, Sec. 2. Strike out "Delegates" and insert "Permanent Members."

Art. VI. Sec. 3. In third line on page 6 strike out "and their returns." Also strike out the word "receive" in the same line, and the following five lines and the first word in the sixth, to the words "and perform all other duties," etc.

Art. VIII. Sec. 2. After the words "Auxiliary Societies" insert "make such an assessment, by a *pro rata* tax upon the Permanent Members, as may be necessary for incidental expenses."

Sec. 3. Add at the close "and such other matters as may be referred to it by the Society. If any member shall be charged, in writing, with any violation of the provisions of this Constitution and By-Laws, or with unprofessional conduct, a copy of such charge shall be furnished to him by the Secretary, and himself and accuser cited to appear, when the Committee shall proceed to hear the case, reserving its decision to be reported to the Society; except that any case may be referred to an auxiliary society for adjudication, which adjudication shall be final, so far as this Society is concerned, except on an appeal. Reports from this Committee shall be acted upon without debate."

Art. X. Sec. 2. Strike out "Delegates" and insert "Permanent Members."

Art. XII. Strike out "Delegates" in third and sixth lines and insert "members."

By-Laws 3 and 11. Strike out "Delegates," wherever it occurs, and insert "members."

After By-Law 6, insert the following new By-Law: "All reports, papers and addresses presented to this Society by its members are the property of the Society, and shall be referred, without motion and without recommendation, to the appropriate committee; and it shall be considered a misdemeanor for the author of any such report or paper to permit the same to be published except as authorized by special vote of the committee or the Society."

The only serious opposition offered to the adoption of the constitution last year was directed against the change which would make the delegates, instead of the members, as now, the governing body. While this form of organization is that adopted by several of the most successful State societies, and while it was unanimously recommended by both the Committee on Revision and the Judicial Council, it is now, after a year's further investigation and correspondence, considered very questionable by the committee whether the feeble condition of most of the county societies, and the flourishing condition of most of the district organizations—the failure of the former being due to the success of the latter, and conversely—do not render the proposed change undesirable, at least for the present.

This doubt in the minds of the committee leads them to suggest the above changes, hoping the remainder of the constitution, containing many excellent features, may be adopted with little or no discussion. Another reason for this is that, while last year the list of prepared papers was so meager that it is problematical what the members of the society could have done with themselves had it not been for the proposed constitution—which proved such a providential *pièce de resistance*—this year the prospect is that it will be difficult to find time for all the excellent papers that are being prepared.

If any member has any further change to propose, it would serve to assist the committee and expedite business if he would drop a card to the chairman (the secretary) containing the change desired. These changes can then be reported upon together by the committee.

NERVE-STRETCHING.

Nerve-stretching, as a remedy for centric diseases, has certainly proved a failure, while in the relief of peripheral diseases its laurels are so few and gory that it must doubtless be abandoned as a justifiable method of treatment.

In the *Medical Press and Circular*, for April 12th, is an account of a recent debate on this subject among the leading surgeons of Berlin. Prof. Westphal, who first operated in 1877, said he had never seen a case benefitted by the operation, but had seen many cases, including a wide range of disease, made worse by it. In one case, where the operation had been several times

repeated, the failure was signal. Prof. Langenbeck had had a case of neuralgia of the great toe, in which, after employing nerve-stretching several times, he finally resorted to amputation of the toe, but without avail. Nussbaum's case of stretching of the intercostal, which had been reported as successful, was really an utter failure.

The natural conclusion is that the temporary improvement that has in many cases been observed has been due to the profound impression produced upon the mind of the patient. History repeats itself, and this operation is no improvement on the use of "Perkins' tractors."

THE BACILLUS TUBERCULOSIS.

We publish elsewhere an account of Koch's investigations on the bacillus of tuberculosis, and while it is very likely that the next investigator will claim that the bacillus is due to the tubercle, and not the tubercle to the bacillus, we may feel sure of this much, that out of all this study something new will almost certainly be developed.

The discovery has been variously received and commented on. The London *Lancet* speaks of it with great deference, while the *Times and Gazette* ridicules the whole matter. Tyndall comes out strongly in its favor, and Baumgarten claims to have already, even at the time that Koch's discovery was announced, found the same masses of rod-like bacteria.

But we cannot help asking, Granting the discovery to be genuine, what then? Here is a parasite that is not destroyed by months of drying, that is not killed by boiling, that flourishes in strong solutions of so-called germicides: is it within the range of any reasonable possibility that we now possess a remedy, or that a remedy will be discovered in the future, that can kill the parasite without killing the patient? We do not believe it is. The discovery, if verified, is a triumph in pathology, not in therapeutics.

Of late, too, there has been some little talk, in certain circles, about tuberculosis being a "self-limited" disease. This view is pleasant, very pleasant; but it does not change the fact that, even if true, the limit of the disease reaches, somehow, beyond the limit of the lives of the vast majority of those affected.

THE DUTIES OF PRACTITIONERS IN RELATION TO THEIR PROFESSIONAL SERVICES TO EACH OTHER, TO THEIR FAMILIES, WIDOWS AND CHILDREN. —All legitimate practitioners of medicine, their wives, and children, while under the paternal care, are entitled (NOT as a matter of right, but) by professional courtesy, to the reasonable and gratuitous services—*railway and like expenses excepted*—of the faculty resident in their immediate neighborhood, whose assistance may be desired. In the case, also, of near relatives who

are more or less dependent upon a professional brother (other than wealthy), it will likewise be well, at his request, to forego or to modify the usual fee. On the other hand, a son or daughter altogether independent of the father—or the widow and children of a practitioner left in affluent circumstances—should be charged as ordinary patients—unless, feeling of friendship, or other special reasons, render the attendant practitioner averse to professional remuneration; in such case, the rule need not apply. Moreover, if a wealthy member of the faculty seeks professional advice, and courteously urges the acceptance of a fee, it should not be declined—for *no pecuniary obligation ought to be imposed on the DEBTOR, which the DEBTEE himself would not wish to incur.*—*British Med. Journal.*

THE Society should cultivate such an *esprit du corps* that no member, having accepted an appointment to read a paper, would *dare* to fail without an unexceptionable excuse.

DEATHS

Death has been very busy, during the last few weeks, among the great men of the profession.

Professor Schwann, who died recently at Cologne, was born in 1810. He was one of the very first to advance the cellular doctrine, and it was in recognition of his eminent services to science that he was called, in 1838, to the University of Louvain, and subsequently to the University of Liege.

Professor James R. Wood, who died at New York, May 4th, of pneumonia, was born in 1816. He graduated from the medical college at Castleton, Vt., in 1846. In 1856, being connected with the Bellevue Hospital, he established a system of Saturday surgical clinics at the Hospital, and it was from this start that Bellevue Hospital Medical College took its origin in 1861.

Professor Wood was a bold, accurate, rapid, skillful and successful operator. He was not a writer, and his literary contributions have been principally limited to reports of special cases.

Professor John T. Hogden, of St. Louis, who died of shock and peritonitis, incident to erosion and perforation of the gall-bladder, on the 29th of April, was born in 1824. He was not only a most skillful surgeon, but a magnificent man; and at his sudden and unexpected death the people of St. Louis mourned as over a deep and personal bereavement. It is, indeed, given to but few men to occupy so large a place in the public heart.

Erskine Mason, who recently died in New York at the early age of 45, was a well-known writer, and had contributed many valuable articles to the medical journals. He was at one time connected with the College of Physicians and Surgeons, and later with the University. He was also visiting surgeon to various hospitals.

TUSCARAWAS CO. MEDICAL SOCIETY.—At its last meeting the following officers were elected: *Pres.*, J. M. Exline, of Canal Dover; *Vice Pres.*, J. H. McLean, of New Philadelphia; *Sec.*, Mrs. J. A. D. Richards, of New Philadelphia; *Treas.*, F. W. McCauley, of Uhrichsville.

The principal business of the session was the consideration of the case of Dr. E. C. Lewis, who was finally expelled for unprofessional conduct.

CORRECTION.—In Dr. Jewett's paper on Vital Statistics, in the April JOURNAL, he stated that the statistical reports of Michigan ended in 1874. He has since learned that this publication is only temporarily suspended, not abandoned.

ALTHOUGH no banquet is announced in the programme, it is understood that the Committee of Arrangements is making all due effort in that direction. It is probable that the banquet will occur after the lecture of Wednesday evening.

INSANITY FROM DRUGS.

Members of the medical profession, especially those having had dealings with the insane, are earnestly requested to answer the following questions, fully, yet concisely. The subject is one of so much importance, medicolegally, and otherwise, and so little is to be found upon it in works on insanity, that it merits the attention asked for it:

1. Have you ever seen any cases of insanity, temporary or permanent, or any deviation from the normal mental or moral state that could be traced directly to the use of a single large dose or the continued use of opium or any of its preparations or alkaloids?
2. Of what type was such insanity? Give symptoms.
3. State patient's age, sex, civil condition, and occupation.
4. What was its duration and result?
5. State color of patient's hair, eyes, and complexion.
6. Was there any hereditary tendency to insanity, or any system of alcoholism, grave nervous disease, or any drug habit in the patient's ancestors?
7. What amount of the drug was used and for how long a time?
8. What line of treatment was pursued?
9. Please answer the same questions regarding the use of chloral hydrate.
10. Please answer the same questions regarding the use of bromide of potassium or any other drugs.

Stamps will invariably be returned. In all cases so requested communications will be considered strictly confidential. Reprints of the article, embodying the results of such statistics, will be sent to each correspondent. Address Dr. H. H. Kane, De Quincey Home, Fort Washington, New York City.

THE *Index* of this volume of the JOURNAL will be sent to all subscribers with the July number.

OBITUARY.

At a called meeting of the Knox County Medical Society, held in Mt. Vernon, March 13th, 1882, the following action was taken with reference to the death of Dr. Jane Payne:

WHEREAS, It has pleased God in His wisdom to remove from our midst Jane Payne, M. D.; and

WHEREAS, In her death this Society has lost a consistent and honorable member; therefore,

Resolved, That we, as a Society, deeply regret our loss in the death of Dr. Payne.

Resolved, That we extend our sympathies to the bereaved family in this their hour of trial and affliction.

Resolved, That this Society attend the funeral in a body.

Resolved, That these resolutions and the following biography be spread upon our journal and that a copy be sent to THE OHIO MEDICAL JOURNAL and the Mt. Vernon papers for publication.

IN MEMORIAM.

Miss Jane Payne was born in Bristol, England, Sept: 1st, 1825; came with her parents to America in 1832; was educated at Hamilton, Ohio; studied medicine with Drs. Russell and Thompson, of Mt. Vernon; graduated from the Woman's Medical College, of Philadelphia, standing first in her class; she began her duties as a physician in Mt. Vernon, under very embarrassing circumstances, as she had to contend with the prejudices of the community against a female physician; but that earnestness and perseverance which characterized her as a student and won for her the laurels in her graduating class, obtained for her a lucrative practice despite all adverse circumstances. Though encumbered with difficulties that might have disheartened and baffled one of the sterner sex, her brave Christian heart and indomitable courage overcame every obstacle, gaining for her the plaudits of the community and the congratulations of her friends. Although suffering with an incurable malady, she was ever ready to minister to the wants of her patients, until within a few months of her death, which occurred on the evening of March 11th, 1882.

J. C. GORDON, M. D., }
J. L. BURR, M. D., } *Committee.*
E. J. WILSON, M. D., }

NOTES AND COMMENTS.

Guiteau says: "If I had the money I could get fifty of the best experts in the country to swear that I was crazy as a loon." Guiteau is evidently posted.

If ovarian tumors were never tapped, ninety-eight per cent. of recoveries would be the rule in ovariectomy.—*Maryland Med. Journal*.

RESUSCITATION OF FROZEN ANIMALS.—Of twenty animals treated by Manassen by gradual resuscitation in a cold room, fourteen died; of twenty introduced at once into a warm apartment, eight perished; while of twenty placed immediately in a hot bath, all recovered.—*International Surgical Record*.

PERSISTENT HYMEN IN THE COW.—M. Gallier, of Caen, found in a cow suffering from loss of appetite, suspended rumination, colic, violent straining and constitutional disturbance, an obstacle to his exploration of the vagina, a little in front of the meatus. By rectal examination he determined a distension of the vagina and uterus, although the cow was not with calf. He diagnosed persistent hymen, causing a sero-purulent accumulation in the uterus and vagina. Introducing his hand in the vagina, he pushed his index finger violently against the obstructing membrane, which burst, and a large quantity of clear yellowish liquid shot out. He ordered aromatic infusions to be injected, and the animal rapidly recovered.—*Archives Veterinaires.—Vet. Gazette*.

WHAT AILED DEAN SWIFT?—When "the Vandal desecration of monuments" in 1835 exposed Swift's skull to the phrenologists, the great Dublin aurist might possibly have found in the bones of the ear traces of the cause of his giddiness. When Mr. Whiteway examined the brain he might have found the cause of Swift's right-sided hemiplegia and his aphasia. It is enough now that we can diagnose his life-long disease as labyrinthine vertigo, and his insanity as dementia with aphasia; the dementia arising from general decay of the brain from age and disease, the paralysis and aphasia from disease of one particular part of the brain.

With all the tortures of the life-long disease from which he suffered and its obvious effect upon his temper in his later years, it is wonderful that Swift did retain his reason until, in the seventy-fourth year of his age, he was in all probability struck down by a new disease in the form of a localized left-

side apoplexy or cerebral softening, which determined the symptoms of his insanity.

That Swift's works contain no indications of insanity appears to me certain. As well say that Shakespeare was mad because he wrote a good deal which we think nasty. In the fashion of the day, Swift was too prone to make what may be called excrementitious jokes and gibes. But that perfect gentleman Antonio voided his rheum upon Shylock's beard; and the same kind of thing runs through our literature, no one objecting, until we rather recently began to become less natural and more nice. Some of our smaller humorists and men of letters have criticised this great king of humor as if he were both bad and mad, not perceiving that if he were really insane he must be pitied and not cursed. But it is the weakest of arguments to say, with Festus, for want of argument, "Much learning doth make thee mad." There is always weakness in madness, but there is little sign of this in Swift's works. There is always some inconsequentness or incoherency in madness, but there is none of this in Swift. Down to that last letter to Mrs. Whiteway he is most wretched, but he is still collected and wholly himself.—From "Dean Swift's Disease," by Dr. Bucknill, in *Popular Science Monthly* for April.

The *Medical Times* thus describes the practice now controlling medical education in this country: "It is an uncontrolled monopoly in medicine; it is the putting into the hands of a few men, to be used for their personal gain, the granting of the right to practice, and in no way supervising the methods in which this power is used. It is not the creation of a single strong institution, within whose walls students shall be forced to enter, whose faculty shall command the market and be under little or no temptation for gold to barter the right to practice medicine to persons unprepared for the responsibilities they are so eager to assume. It is the formation of a few firms, so to speak, who shall divide the patronage between them, be under no supervision, grant the diplomas upon secret examination, and, knowing that as is the number of diplomas they get rid of so is the number of dollars in their own pockets, be under incessant inducement to sell honor for gain—each declaring all the time that his neighbor is underbidding him and he must lower his standard. Thus it has come to pass that an American medical diploma, which at first meant as much as it did in any other country, now too often signifies only that five out of seven men have thought their interests would be best served by giving the diploma to its possessor."

A "BONE SETTING" HORSE.—Dr. Geo. I. Rice, of La Moille, Illinois, relates a very interesting case. A patient presented himself with an old dislocation of the shoulder downward, which had occurred nearly a year before.

No force, which it was prudent to use, was sufficient to reduce it, and the case was left to nature.

Last Thanksgiving day, just four years after the joint was dislocated, the patient was riding in a buggy, leading a blind horse following. To make sure of his hold, he wound the halter around his wrist. The blind horse chancing to run against the hind wheel, became frightened and jerked violently backward. The forward horse meanwhile kept pulling ahead. The wrench was terrible, and the man went home nearly sick and took to bed. At length he fell asleep, and woke after some hours refreshed. To his great surprise, he found the dislocated shoulder reduced, and in a short time the joint regained nearly its normal usefulness.

Will the Illinois Board of Health have this horse fined for practicing without a license?

ONE OF OUR INSTITUTIONS.—In '79 the late Dr. Choppin, convinced that our privy-saturated soil was at least a partial cause of certain forms of preventable disease, set on foot an inspection of that New Orleans temple of liberty and independence, the privy-vault.

A venerable gentleman, whose temple was investigated and ordered emptied and deodorized, delivered himself as follows. We give his speech here, as a revelation of the deep-seated feeling of many good people and their indignation at the invasion of their ancestral treasures proposed by iconoclastic reformers, who have no reverence for ancient smells:

“Le Doctor Choppin! Oui! He come with his acid carbolique. He look to mine vault. It is von good vault. Mine fater he make cet vault. I hold him from mine fater. Mine fater use him. I use him. Our families use him. More as fifty years since he was built. He nevare was empty. Why? Nobody complain. He was always good. Now come le Dr. Choppin. He make one mauvais smell wiz his acid carbolique. He say I muss empty cet vault. I will not him empty. He is good vault. He is the vault of mon pere. I shall not him empty. He smell strong, but he make de good health. I know him. Le Dotor Choppin he wat you call humbug wiz his acid carbolique. Got him tam!”—*New Orleans Times*.

CLEANING SPONGES.—A writer in the *British Medical Journal* finds that returning the sponge to its native element, or steeping it in strong salt and water, to which a few grains of iodine have been added, enables it to throw off its impurities and to regain its normal elasticity and absorbent properties, and at the same time become completely disinfected. The process is not a rapid one; and iodine is only slightly soluble in salt water; so that very dirty sponges cannot be purified in this way, and a preliminary washing in soap and warm water is necessary.

A WARNING TO DOCTORS.—The Chinese authorities of Shanghai recently issued a quaint decree respecting the neglect of physicians to attend at once on their patients, and the high fees which they charge. They give notice that is the duty of all physicians to use their knowledge for the benefit of the people; when people were sick they must be ready to attend upon them whenever they are sent for, without regarding the hour of the night or day, or the state of the weather. When people are ill they long for the presence of the doctor as the grain of seed longs for the rains. Instead of doing this, however, the physicians now think that they possess great skill, and not only charge high fees, but insist on being paid full hire for their chair coolies, and they do not care what becomes of the patient so that they get their fees. If these were only charged to the wealthy it would not so much matter; but the poor have them to pay also. An evil practice (the decree declares) also exists by which doctors will not visit their patients before one o'clock in the afternoon. Some will even smoke opium and drink tea until late in the evening. These are abuses, the magistrates say, which they will on no account permit. Doctors must attend their patients at all times. They must, if necessary, visit them several times daily; they must think more of them and less of their fees. Notice, therefore, is given to all the officials and people, that a physician who does not attend when he is called, must only receive half his fees and half his chair hire. "If you physicians delay your visits, you show your wickedness, and sin against yourselves." The decree is a model one for a paternal government; argument, entreaty, obijuration, exposition, threats, are all mingled in due proportion.

In order to secure a proper degree of attention on the part of the native physicians, foreign merchants who employ them to attend their Chinese servants and other employes, are in the habit of paying them by the year, and docking off a proportionate amount for the time lost by their days of disability from sickness. This makes the physician anxious to cure the patient as soon as possible, so that his pay shall go on.—*Med. News.*

BREAD, after all, is the cheapest diet one can live on, and also the best. A story is told that shows just how cheap a man can live, when he gets "down to mush," figuratively and literally speaking. Col. Fitzgibbon was, many years ago, colonial agent at London for the Canadian Government, and was wholly dependent upon remittances from Canada for his support. On one occasion these remittances failed to arrive, and as there was no cable in those days, he was compelled to write to his Canadian friends to know the reason of the delay. Meanwhile he had just one sovereign to live upon. He found that he could live on sixpence a day, or about 12½ cents of our money—four penny worth of bread, one penny worth of milk, and one penny worth of sugar. He made pudding of some of the bread and sugar,

which served for breakfast, dinner and supper, the milk being reserved for the last meal. When his remittances arrived, about a month afterward, he had five shillings remaining of his sovereign, and he liked his frugal diet so well that he kept it up for over two years, possibly longer. Twelve cents a day is certainly a small amount to expend for food; but a man in Minnesota, about three years ago, worried through a whole year on ten dollars. He lived on "Johnny cake." We know of a theological student in an Ohio college who, sustained by grace, rice and corn bread, lived thirteen weeks on seven dollars; but there were several good apple orchards near the college and the farmers kept no dogs. It is not the necessities of life that cost so much, but the luxuries; and it is with the major part of mankind as it was with the Frenchman who said that if he had the luxuries of life, he could dispense with the necessities. Mere living is cheap, but as the hymnologist says, "It is not all of life to live."—*American Miller*.

A German writer's idea of the qualifications needful for a physician is as follows: "You must bring to your task a clear eye and sharp ears; acuteness of observation and patience for infinite study; an unclouded brain and an iron will strengthened in difficulty and embarrassment, but a warm, moving heart which takes cognizance of all sorrow and sympathizes with it: religious convictions and moral stamina, which resist the seductions of sensuality, money and honors. Besides you must have a respectable exterior; you must be polished in conversation; dexterous with the hands, possessed of health of body and soul. You must have the camel's burthen of knowledge and preserve the freshness of the poet. You must weigh all the tricks of charlatanism, and in the midst of temptation remain an honest man. Remember that on your calling depends everything; it must be your religion and your politics, in fortune and misfortune. Therefore advise no one to be a physician. If he persist in his determination, persist in dissuading him. If he still persevere, then give him your blessing, and if he is worth anything he can put it to use."—*Pacific Med. Jour.*

"Is there a 'Field' for Battey's operation?" is a question asked in the last volume of Transactions of the American Gynecological Society. The London *Lancet* replies in the affirmative, but wishes to remind its readers that "a 'field' is not a *prairie*."



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